Assessing the Relationship between Instructor Servant Leadership Behaviors and Satisfaction With Instructors in an Online Setting

Dissertation

Submitted to Northcentral University

Graduate Faculty of the School of Business and Technology Management in Partial Fulfillment of the Requirements for the Degree of

DOCTOR OF PHILOSOPHY

by

FARIS GEORGE SAHAWNEH

Prescott Valley, Arizona June 2016

Copyright 2016

Faris George Sahawneh

APPROVAL PAGE

Assessing the Relationship between Instructor Servant Leadership Behaviors and Satisfaction with Instructors in an Online Setting

by

Faris George Sahawneh

Approved by:

Approved by: Chair: Lorraine T. Bennuo, Ph.D.	
Certified by: School Dean: Peter Bemski, Ph.D.	8 4 1b Date

Abstract

Servant leadership has emerged as one possible leadership style that has the potential to improve student satisfaction with online learning. An examination of servant leadership at the individual online instructor level provided an opportunity to consider key individual characteristics of servant leadership. However, until the current study, it remained unclear how individual-instructor leadership behavior variables were related to online student satisfaction. The purpose of this quantitative correlational study was to evaluate the relationship between online students' perception of their instructor's servant leadership style and the student's satisfaction with the online instructor. The general population was adult online students in the United States who were 18 years or older and were enrolled in online classes. The sampling frame for the study consisted of 155 online students at a major community college in the southcentral United States. The study instrumentation was an electronic survey adapted from two pre-validated measures: (a) the Servant Leadership Questionnaire (SLQ), and (b) the Student Evaluation of Teaching survey (SET). The relationship between the predictor variables (the five facets of perceived servant leadership style: including altruistic calling (AC), emotional healing (EH), wisdom (WI), persuasive mapping (PM), and organizational stewardship (OS) and the criterion variable student satisfaction (SS, as measured by the SET) was examined using Spearman's rho correlation statistic. The results of the Spearman's correlation showed a strong positive correlation between SS and AC, $r_s(153) = .70$, p < .001; EH, $r_s(153) = .51$, p < .001; WI, $r_s(153) = .70$, p < .001; PM, $r_s(153) = .69$, p < .001; and OS, $r_s(153)$ =.67, p < .001. A multiple linear regression analysis showed that the servant

leadership behaviors of altruistic calling, persuasive mapping, and wisdom predicted student satisfaction with the instructor better than any single leadership style alone. The results of this study have filled a gap in the literature on the relationship between online student satisfaction and individual servant leadership behaviors. Future research involving conducting this study at 4-year public, for-profit, and private institutions was recommended.

Dedication

To the One who is the quintessential example of servant leadership, the One who transformed my life—the Lord Jesus Christ.

Have this mind among yourselves, which is yours in Christ Jesus, who, though he was in the form of God, did not count equality with God a thing to be grasped, but emptied himself, by taking the form of a servant, being born in the likeness of men. And being found in human form, he humbled himself by becoming obedient to the point of death, even death on a cross. Therefore God has highly exalted him and bestowed on him the name that is above every name, so that at the name of Jesus every knee should bow, in heaven and on earth and under the earth, and every tongue confess that Jesus Christ is Lord, to the glory of God the Father.

Philippians 2:1-11 (English Standard Version)

And to my wife and best friend-

Mitzi Sahawneh

In appreciation for your love, support, encouragement, and for believing in me.

To my three loving children-

Ethan, Lydia, and Isaac

For bringing the much-needed laughter to my life, which I needed throughout this doctoral journey.

To my mother- Estier Mazahreh Sahawneh

Whose early belief in education made me what I am today.

Acknowledgments

"No matter how difficult the challenge or how impossible or hopeless the task may seem, if you are reasonably sure of your course, just keep going." -Robert Greenleaf

I began this doctoral journey that was full of both ecstasy and agony about eight years ago. Finishing this trek could not have been possible without the help I received along the way. First, I want to thank God for the sustaining grace He has given me during this journey and for the people He has placed in my path. I have many to thank who had helped to cheer me on to the finish when so many times I wanted to quit. Isaac Newton once said, "If I have seen further it is by standing on the shoulders of giants." One of those special people is Dr. Lorraine T. Benuto to whom I want to express my deepest gratitude and sincere respect. Dr. Benuto was my motivator-in-chief from the first course I had with her. I am deeply thankful for her wise guidance, scholarly feedback, and insistent urging to finish the journey. I am also grateful to the members of my dissertation committee for their expertise, dedication, commitment, and guidance. Dr. Ella Benson and Dr. Heather Strouse, my content experts, I am grateful for their valuable feedback as the subject matter experts; and Dr. Sharon Kimmel, for her helpful comments on the research method, excellent suggestions, and thought-provoking questions. Next, I wish to thank the community college, where I collected the data, for the encouragement and support I received, especially from Connie Heflin, Dean of Online Learning.

I also wish to offer my heartfelt gratitude to my family, the support system, which I had to lean on through this doctoral journey. First, I am profoundly thankful to my

precious wife and closest friend, Mitzi; and our children, Ethan, Lydia, and Isaac, for their sacrifice all these seven years. They were gracious to allow me to squeeze the time needed to finish this journey, without you all I could not have reached the finish line; I love you. Second, I am thankful for my spiritual family at Hardmoney Baptist Church, for their prayers and support that refreshed my soul in the midst the agony of the doctoral journey. Finally, I am thankful for the encouragement I received from my dad, George Sahawneh, my mother, Estier Mazahreh Sahawneh, my brothers, and my sisters, who cheered and supported me along this journey and kept me going. To God be the glory. Amen.

Table of Contents

List of Tables	xi
List of Figures	xii
Chapter 1: Introduction	1
Chapter 1: Introduction Background Statement of the Problem Purpose of the Study Theoretical Framework Research Questions Hypotheses Nature of the Study Significance of the Study Definition of Key Terms	2 5 7 11 12 14
Summary	
Chapter 2: Literature Review	25
Literature Search Strategy The Need for Servant Leadership Servant Leadership Versus Transformational Leadership History of Servant Leadership Servant Leadership as a Theory Servant Leadership in the Classroom Servant Leadership in Higher Education Criticisms of Servant Leadership Online Education Criticisms of Online Education and Web-Based Learning Management System. Student Satisfaction with Online Education Summary	26 27 30 33 41 55 55 62 63 68
Chapter 3: Research Method Research Method and Design Population Sample Materials/Instruments Operational Definition of Variables Data Collection, Processing, and Analysis Assumptions Delimitations Ethical Assurances Summary	75 77 78 79 82 85 87
Chapter 4: Findings	90
ResultsEvaluation of Findings	

Summary	117
Chapter 5: Implications, Recommendations, and Conclusions	119
Implications	121
Recommendations	
Conclusions	141
References	144

List of Tables

Table 1	Comparing Servant Leadership and Transformational Leadership Theories	. 30
Table 2	Summary of Servant Leadership Models	. 38
Table 3	Demographic Distributions of Participants	. 92
Table 4	Servant Leadership Style: Means and Standard Deviations	. 93
Table 5	Collinearity Statistics	. 99
Table 6	Stepwise Multiple Regression Analysis Predicting Student Satisfaction With	
Instructo	or From Servant Leadership Scores1	104
Table 7	Integrated Servant Leader Development Model: Antecedent and Demonstrated	d
Behavio	<i>r</i> 1	124

List of Figures

Figure 1.	Scatterplot of altruistic calling versus student satisfaction	94
Figure 2.	Scatterplot of emotional healing versus student satisfaction	94
Figure 3.	Scatterplot of wisdom versus student satisfaction	95
Figure 4.	Scatterplot of persuasive mapping versus student satisfaction	95
Figure 5.	Scatterplot of organizational stewardship versus student satisfaction	96
Figure 6.	Histogram to test normality for student satisfaction.	97
Figure 7.	Histogram of regression standardized residuals for testing normality	98

Chapter 1: Introduction

Online education has become a necessary and feasible educational experience for many students (Croxton, 2014). During the Autumn 2014 semester, a total of 5.8 million students across the United States were enrolled in online courses, of which 2.85 million taking all of their courses online and 2.97 million taking few, but not all, classes online (Allen & Seaman, 2016). This growth in online education is largely driven by students who wish to enhance their careers, who seek course credits and credentials, and who want the convenience of not having to attend classes at a traditional campus (Bowen, 2013; Cole, Shelley, & Swartz, 2014). As consumers, these students often expect information to be delivered to them (Jones, Everard, & McCoy, 2011; Woodall, Hiller, & Resnick, 2014) and to have a satisfactory online experience (Kuo, Walker, Schroder, & Belland, 2014).

Despite the increase in online enrollment, the rate of persistence in online courses is low (Hachey et al., 2013; Harris & LeBrun, 2013; Larrier & Castano-Bishop, 2011; Xu & Jaggars, 2011). Institutions of higher education lose more than half of the students who are enrolled in online programs (Betts, 2008), and the student dropout rate for online education is higher than conventional education (Simpson, 2013). This high attrition rate is costly to the students, their families, instructors, and institutions (Ali & Leeds, 2009; Croxton, 2014). Because online education continues to grow (Allen & Seamen, 2013), factors that may mitigate these high attrition rates and increase student satisfaction with online learning are worth investigating (Cole et al., 2014; Croxton, 2014; Huber, 2014; Kuo et al., 2014). Because student satisfaction is strongly linked to persistence (Hart,

2012; Joo, Joung, & Kim, 2013; Schreiner & Nelson, 2013), it is necessary to examine and explore what factors are related to student satisfaction.

Background

As indicated above, online education is a necessary and feasible educational experience for many students (Allen & Seaman, 2016; Allen & Seaman, 2013; Croxton, 2014). Despite the many benefits of online learning (Bowen, 2013; Cole, Shelley, & Swartz, 2014; Jones, Everard, & McCoy, 2011; Woodall, Hiller, & Resnick, 2014), student persistence in the online environment remains low (Hacheyet al., 2013; Harris & LeBrun, 2013; Larrier & Castano-Bishop, 2011; Marx, 2011; Xu & Jaggars, 201). Because student persistence is related to student satisfaction (Hart, 2012; Joo et al., 2013; Schreiner & Nelson, 2013), one avenue of improving student persistence is via improving student satisfaction. Considering that it is the instructor who works in closest proximity to the student (Lom, 2012; van de Bunt-Kokhuis & Weir, 2013), instructor characteristics in the context of student satisfaction and persistence are important. In fact, when instructors show empathy and caring (Hazel et al., 2014; Ladyshewsky, 2013); express personal consideration; and offer intellectual stimulation, motivation, and inspiration (Bogler, Caspi, & Roccas, 2013), student satisfaction, retention, and success increase (Kranzow, 2013; Gomez, 2013; Joo et al., 2013). Many of the instructor characteristics mentioned above are consistent with a servant leadership style (Jacobs, 2011; Noland & Richards, 2015; van de Bunt-Kokhuis, & Weir, 2013). A servant leader is a leader who places other people's needs, goals, and wellbeing above his or her own in order to produce a positive transformation among followers (Barnabas et al., 2010; Greenleaf,

1978; Letizia, 2014). Indeed, the relationship between students and instructors in an online course is similar to the leader-follower relationship observed in organizational settings (Bolkan & Goodboy, 2011; Bogler et al., 2013). In the online classroom, instructors act as leaders (Garcia, 2015) and their style of leadership may influence their followers, who are the students (Noland & Richards, 2015; Pounder, 2014).

Servant leadership may be a good fit for online learning as online learners face unique challenges (Johnson & Vishwanath, 2011; Huber, 2014; Mariano, 2013; Reed & Swanson, 2014). Servant leadership may benefit online learners via emotional healing, wisdom, persuasive mapping, commitment to the growth and empowerment of others, giving feedback, and commitment to building a community of learners (Barbuto & Wheeler, 2006; Huber, 2014; Steele, 2010). Such characteristics, if exhibited by the individual instructor, may affect student satisfaction (Huber, 2014), which in turn may increase student retention and engagement (Lorenzo, 2012; Noland & Richards, 2015; Schreiner & Nelson, 2013; Cole et al., 2014). However, most of the research on servant leadership in higher education has focused on measuring the organizational level of servant leadership rather than examining servant leadership characteristics within individual instructors (Jacobs, 2011; Nyamboli, 2015; Padron, 2012).

University instructors who are committed to classroom excellence are a critical element for the success of any higher educational institution (Leroy, Palanski, & Simons, 2012). However, instructors face challenges that stem from the expectations of administrators, students, accrediting agencies, and the demands of academic research

(Jacobs, 2011). Nonetheless, these challenges fizzle away in light of the outcome that these teachers aim for—namely changed lives and satisfied students (Greenleaf, 1982).

One of the fundamental cogs in the learning process is the teacher-student relationship (Noland & Richards, 2015; van de Bunt-Kokhuis, & Weir, 2013). This relationship, which is initiated and fostered by the teachers, mirrors the leader-follower relationship found in an organizational setting (Bolkan & Goodboy, 2011; Bogler et al., 2013; Letizia, 2014; Noland & Richards, 2015). The outcome of healthy and trusting relationships between teachers and students in the classroom leads to students' improvements and progress (Noland & Richards, 2015; Reed & Swanson, 2014; Ren, 2010). Building such relationships begins with the teacher's desire to serve their students. The quality of this service is demonstrated when students grow to be healthier, wiser, and they themselves become servants of others (Greenleaf, 1977).

While most of the studies on the relationship between servant leadership and student satisfaction focused on the organizational level of servant leadership (Jacobs, 2011; Nyamboli, 2014; Padron, 2012), no studies to date have focused on examining servant leadership at the individual leader level as it relates to online student satisfaction. This is problematic as the organizational level and the individual level of servant leadership are inextricably intertwined and both must be considered (Irving, 2005; Covey 1998). Considering servant leadership at the individual level provides for an opportunity to examine and highlight key individual characteristics of servant leadership (Covey, 1998; Noland & Richards, 2015). Furthermore, a critical mass of people within the organization must first begin individually the practice of servant leadership in order to

have servant leadership at the organizational level (Irving, 2005; Laub, 1999). Thus, the current study provided the opportunity to examine five key individual characteristics of servant leadership and online student satisfaction. Barbuto and Wheeler (2006) highlighted the following five essential individual characteristics of servant leadership:

(a) altruistic calling, (b) emotional healing, (c) wisdom, (d) persuasive mapping, and (e) organizational stewardship. These five theoretical dimensions where put forward by Barbuto and Wheeler (2006) after examining the literature review and the seminal works of Greenleaf (1997) and Spears (1995). Barbuto and Wheeler's (2006) work of conceptualizing the dimensions and scales of the Servant Leadership Questionnaire (SLQ) survey has supplied the necessary theoretical foundation for predicting that these individual variables may be positively related to online student satisfaction.

Statement of the Problem

A review of the extant literature revealed that there has been much research regarding the factors related to satisfaction among online students (Bogler, et al, 2013; Huber, 2014; Livingston, 2012; Nyamboli, 2014; Padron, 2012; van de Bunt-Kokhius & Sultan, 2012; Yates, 2011). However, the research on the role of online instructors in relationship to online student satisfaction, particularly in terms of the leadership style of the instructor, is much more limited. Servant leadership style has emerged as one possible style that has the potential to improve student satisfaction with online education (Huber, 2014; Nyamboli, 2014; Reed & Swanson, 2014; van de Bunt-Kokhius & Sultan, 2012). An examination of servant leadership at the individual level will provide for an opportunity to consider key individual characteristics of servant leadership (Covey, 1998;

Noland & Richards, 2015). Thus, the problem that existed was that how individual instructor leadership behavior variables are related to online-student satisfaction remained unclear (Bogler et al., 2013; Huber, 2014; Nyamboli, 2014; Yates, 2011). A better understanding of the relationship between individual instructor leadership behaviors and student satisfaction was necessary so that university managers, instructors, and other stakeholders can design more effective trainings that will foster leadership qualities that can improve online-student satisfaction (Bogler et al., 2013; Nyamboli, 2014; Huber, 2014; Yates, 2011), and thereby improve student persistence (Croxton, 2014; Kranzow, 2013).

Purpose of the Study

The purpose of this quantitative, correlational study was to evaluate the relationship between students' perception of their instructor's servant leadership style and the student's satisfaction with the online-instructor. A total of 155 students enrolled in online courses at a community college in the south-central United States completed the Servant Leadership Questionnaire (SLQ: Barbuto & Wheeler, 2006) and the Student Evaluation of Teaching survey (SET: Tsai & Lin, 2012). According to the results of a post hoc power analysis (Faul, Erdfelder, Buchner, & Lang, 2009), the achieved power of the study was 97%, assuming a multiple linear regression with five predictors and an alpha significance level of 0.05. The relationship between the predictor variables (the five facets of perceived servant leadership style, including altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship) and the criterion variable student satisfaction (as measured by the SET) was examined using Spearman's

rho correlation statistic and a multiple linear regression. The results of these evaluations added to the existing servant leadership research in higher education because the focus was on examining online students' perception of the servant leadership characteristics of individual instructors rather than measuring the organizational level of servant leadership.

Theoretical Framework

Among recent leadership research that focused on the leader-follower dynamic, servant leadership is considered one of the most innovative and influential theories (Liden et al., 2015; Stewart, 2012). Servant leadership refers to leaders whose aim is to serve first and then lead by focusing on their follower's needs, and by putting the goals, and wellbeing of the followers above the leader's own in order to create a positive change among the followers (Greenleaf, 1977; Rachmawati & Lanu, 2014). Many organizations such as churches, corporations, and institutions of higher learning have adopted servant leadership as an effective and genuine leadership style that fosters growth among the followers by creating a positive and dynamic work environment (Black, 2010; Huber & Carter, 2014; Rachmawati & Lantu, 2014).

The success of any organization is largely dependent on the quality of its leaders (Northouse, 2013; Valdiserri & Wilson, 2010). Therefore, leadership research has always played a prominent role in the behavioral science field (Letizia, 2014; Parris & Peachey, 2013). Leadership is a skill used to affect followers through an intentional change process in which leaders and followers work together to achieve a common purpose driven by a common vision that binds them together and provides a basis for their relationship (Letizia, 2014; Steffens, Haslam, & Reicher, 2014). However, this

vision, influenced by a humble desire to serve, is first seen by the leader, who then encourages and rallies others to join the leader in pursuing the vision for the good of the followers (Hajjaj, 2014; Garcia, 2015; Letizia, 2014).

Between 1900 and World War II, interest in leadership theories began to emerge (Yukl, 2010). Since then, leadership theory has evolved to include many newly identified leadership styles, including transformational leadership, servant leadership, authentic leadership, charismatic leadership, and e-leadership (Allio, 2013; Garcia, 2015; Goncalves, 2013; Northouse, 2013). The current focus of leadership research is no longer only on the leader and his power, but also on the followers, the working environment, circumstances, and the cultural settings in which leadership takes place (Allio, 2013; Avolio et al., 2009; Northouse, 2013). One particular style of leadership that has captured the attention of researchers across many cultures is servant leadership (Irving, 2010; Letizia, 2014).

Styles of leadership commonly found in higher education, such as transactional leadership and laissez-faire leadership are limited in their leadership potential. These styles are leader-centered and do not empower others to be involved in working together for the common good (Wheeler, 2012). There is a need to recapture the vision and passion that ignited the early excitement about becoming servants in the field of education (Letizia, 2014; Noland & Richards, 2015; Shaw & Newton, 2014). This gap in higher education leadership can be filled by having a leadership style that will transform educational institutions and thus restore the public confidence in higher education, foster long-term commitments, and nurture a work environment in which people thrive as they

provide service to others (Letizia, 2014; Shaw & Newton, 2014; Wheeler, 2012). Servant leadership is that kind of leadership style.

While most of the contemporary leadership theories focus on what the leaders do for the benefit of organization, servant leadership theory is distinguished by its focus on what the leaders do to ensure the wellbeing of the followers (Parris & Peachey, 2012; van Dierendonck et al., 2014). With traits such as listening, empathy, healing, vision, humility, service, commitment to the growth of people, building community, and stewardship, servant leaders have the potential to positively impacting their followers, and thus have the potential for having a long-term impact on both life and work (Finley, 2012; Hajjaj, 2014; Spears, 1998).

Whereas Spears identified 10 characteristics of servant leadership based on the seminal servant leadership work of Robert Greenleaf, other experts have suggested that servant leadership consists of a smaller subset of characteristics (Barbuto & Wheeler, 2006; Dennis & Bocarnea, 2005; Laub, 1999; Liden et al., 2008; Liden et al., 2015; Sendjaya et al., 2008; van Dierendonck & Nuijten, 2011; Wong & Davey, 2007; Wong & Page, 2003). For example, Farling, Stone, and Winston, (1999) put forward five dimensions served that became the framework for many future empirical investigations and models of servant leadership. These investigations and models are divided into two categories, the first is the leader-organization models (Laub, 1999; Russell & Stone, 2002; Wong & Page, 2003), and the second is the leader-follower model (Barbuto & Wheeler, 2006; Patterson, 2003; van Dierendonck & Nuijten, 2011; Winston, 2003). Although these existing models have been used to investigate servant leadership, the

relationship between the leadership behaviors of individual instructors and student satisfaction in online environments remains unclear (Huber, 2014; Jacobs, 2011; Nyamboli, 2014; Padron, 2012). The concepts and tenets of servant leadership may be applied to classroom settings with a positive influence on the educational experience of both instructors and students (Huber, 2014; Jacobs, 2011; Noland & Richards, 2015; Nyamboli, 2014; Padron, 2011). These concepts have been applied in the business world, with favorable results among the followers (Jones, 2012; Van Winkle, Allen, De Vore, & Winston, 2014). Similarly, applying these concepts in the classroom setting, particularly in an online environment, would have the potential to affect both the role of online instructors and higher education andragogy (Crippen, 2010; Johnson & Vishwanath, 2011; Huber, 2014; Nyamboli, 2014; van de Bunt-Kokhius & Sultan, 2012). Without this information, online university administrators and instructors may lack information they need to maximize student satisfaction with their instructor (Kranzow, 2013) and thus to maximize student achievement (Joo et al., 2011) and engagement (Noland & Richards, 2015).

This research study falls under the general theoretical area of leadership. The purpose of this quantitative correlational study was to evaluate the relationship between students' perception of their instructor's servant leadership style (the five facets of perceived servant leadership style as measured by the SLQ: including altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship) and the student's satisfaction with the online-instructor (as measured by the SET). The results of

this study filled the gap that currently exists on servant leadership and online student satisfaction at institutions of higher learning.

Research Questions

To evaluate the extent to which altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship (SLQ: Barbuto & Wheeler, 2006) in an instructor predict student satisfaction (SET: Tsai & Lin, 2012), the following research questions were answered:

- Q1. What is the relationship, if any, between online student perceptions of the instructors' altruistic calling leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States?
- **Q2**. What is the relationship, if any, between online student perceptions of the instructors' emotional healing leadership behavior and student satisfaction with the instructor a community college setting in the south-central United States?
- **Q3.** What is the relationship, if any, between online student perceptions of the instructors' wisdom leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States?
- **Q4.** What is the relationship, if any, between online student perceptions of the instructors' persuasive mapping leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States?
- **Q5.** What is the relationship, if any, between online student perceptions of the instructors' organizational stewardship leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States?

Q6. Which combination of online student perceptions of the instructors' servant leadership behavior characteristics scores better predict student satisfaction with the instructor than any single leadership behavior alone, at a community college setting in the south-central United States?

The answers to the above research questions may enhance the understanding of the role of academic leadership in higher education, specifically servant leadership, and its relationship to online-student satisfaction with the online-instructor at a community college setting in the south central United States.

Hypotheses

To answer the research questions, the following hypotheses were tested and discussed in the study:

H1₀. There is no correlation between online-student perceptions of the online-instructor's altruistic calling leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.

H1a. There is a correlation between online-student perceptions of the online-instructor's altruistic calling leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.

H2₀. There is no correlation between online-student perceptions of the online-instructor emotional healing leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.

- **H2**_a. There is correlation between online-student perceptions of the online-instructor's emotional healing leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.
- **H3**₀. There is no correlation between-online student perceptions of the online-instructor wisdom leadership behavior and student satisfaction with the instructor at community college setting in the south-central United States.
- H3a. There is a correlation between online-student perceptions of the online-instructor wisdom leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.
- **H4**₀. There is no correlation between online-student perceptions of the online-instructor persuasive mapping leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.
- **H4**_a. There is a correlation between online-student perceptions of the online-instructor persuasive mapping leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.
- **H5**₀. There is no correlation between online-student perceptions of the online-instructor organizational stewardship leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.
- $H5_a$ There is a correlation between online-student perceptions of the online-instructor organizational stewardship leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.

H60. Two or more online-student perceptions of the online-instructor servant leadership behavior characteristics do not better predict student satisfaction with the instructor than any single leadership behavior alone, at a community college setting in the south-central United States.

H6a. Two or more online-student perceptions of the online-instructor servant leadership behavior characteristics better predict student satisfaction with the instructor than any single leadership behavior alone, at a community college setting in the south-central United States

Nature of the Study

The purpose of this quantitative, correlational study was to evaluate the relationship between students' perception of their instructor's servant leadership behavior and the student's satisfaction with the online-instructor. The study was conducted in a community college setting. The predictor variables were the five facets of perceived servant leadership behavior, including altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship, as measured by five subscales of the SLQ (Barbuto & Wheeler, 2006). The criterion variable was student satisfaction, as measured by the SET (Tsai & Lin, 2012). A nonexperimental design was used to investigate the relationship between the predictor variables and the criterion variable.

The participants in the study consisted of adult students enrolled in online courses at community college setting in the south-central United States. All 1,024 students enrolled in online classes during the 2015 fall semester were invited to participate in the study. Typical survey response rates are approximately 20% (Bech & Kristensen, 2009;

Chang & Krosnick, 2010; Dillman et al., 2009; Messer& Dillman, 2011). In this study, 1,024 students were invited to participate, and 224 students entered data for the questionnaire. However, when data were downloaded from SurveyMonkey and a missing data analysis was performed using SPSS software, only 155 (69.2%) completed all necessary survey questions.

According to the results of an a priori power analysis (Faul et al., 2009), the required sample size for bivariate correlations was 84, assuming a two-tailed test, a medium effect size of 0.3, an alpha significance level of 0.05, and a power of 80%. With a sample size of 155, the achieved power of the bivariate correlation was 96.9%. To achieve a power of 80%, the required sample size for a multiple linear regression with five predictors was 95, assuming a medium effect size of 0.15, an alpha significance level of 0.05, and a power of 80%. With a sample size of 155, the achieved power of the multiple linear regressions was 97.2%.

The data for the study were collected using an online survey that included both the SLQ (Barbuto & Wheeler, 2006) and the SET (Tsai & Lin, 2012). SurveyMonkey (n.d.), an online survey-hosting site, facilitated the data collection process. Survey Monkey allows users to create highly individualized survey questionnaires (Roberts, 2010).

Two follow-up email reminders were sent to the participants one week after the initial invitational email. Data collection ended after three weeks. Then, all statistical calculations and analysis were performed using the SPSS software. The relationship between each of the predictor variables (altruistic calling, emotional healing, wisdom,

persuasive mapping, and organizational stewardship) and the criterion variable of student satisfaction was examined using Spearman's rho correlation statistic and a multiple linear regression analysis. All analyses were two-tailed, with a 5% alpha significance level.

Significance of the Study

Despite the increase in online enrollment, the rate of persistence in online courses is low (Hachey et al., 2013; Harris & LeBrun, 2013; Larrier & Castano-Bishop, 2011; Xu & Jaggars, 2011). Institutions of higher education lose more than half of the students who are enrolled in online programs (Betts, 2008), and the student dropout rate for online education is higher than conventional education (Simpson, 2013). This high attrition rate is costly to the students, their families, instructors, and institutions (Ali & Leeds, 2009; Croxton, 2014). Servant leadership may be a good fit for online learning because online learners face unique challenges that servant leaders may be able to mitigate (Johnson & Vishwanath, 2011; Huber, 2014; Mariano, 2013; Nyamboli, 2014; van de Bunt-Kokhuis, & Weir, 2013). This research aimed to examine how (if at all) servant leadership principles in online education relate to students, instructors, and higher educational institutions. The current study was significant for three specific reasons: (a) this study had the potential to identify factors that were related to online student satisfaction and thus improve retention; (b) this study clarified, for the first time, the relationship between individual servant leadership behaviors of online instructors and student satisfaction; and (c) this study had the potential to effectively inform educators and other stakeholders to provide training in servant leadership to online instructors.

When servant leadership characteristics such as caring, empathy, community building, stewardship, conceptualization, and foresight are exhibited in the online classroom setting, students benefit (van de Bunt-Kokhuis, & Weir, 2013). In fact, students are able to complete the course with increased knowledge and skill, and a firm commitment to serve others, especially those who are less fortunate in society (Greenleaf, 1977; Huber, 2014). Furthermore, servant leadership behaviors, as exhibited by instructors, result in satisfied students, which is linked to their persistence (Hart, 2012; Joo, Joung, & Kim, 2013; Schreiner & Nelson, 2013; Jacobs, 2011) and engagement (Noland & Richards, 2015).

In the current online higher educational milieu, servant leadership may be an effective style of leadership that instructors can adopt (Nyamboli, 2014; Setliff, 2014; Steele, 2010). These instructors are keenly aware of the need of personal continual growth and improvement; and are mindful that effective teaching must be learners centered where students' needs are placed first (Jacobs, 2011; Letizia, 2014). By doing this, instructors are able to lead their classes, foster trust among students, create a sense of community, and develop strong relationships with the students (Finley, 2012; Hajjaj, 2014; Noland & Richards, 2015; van de Bunt-Kokhius & Sultan, 2012; van de Bunt-Kokhius, & Weir, 2013). This relationship between instructors and learners is an essential component in the course of assessing and improving teaching at higher educational institutions (Setliff, 2014; Jacobs, 2011). These servant-teachers feel a sense of satisfaction in seeing growth and maturity in the lives of their students (Letizia, 2014; Noland & Richards, 2015). Focusing on strengthening this relationship may affect

student satisfaction and retention at intuitions of higher learning (Agbetsifa, 2010; Cole et al., 2014; Croxton, 2014; Kranzow, 2013; Noland & Richards, 2015; Paul & Fitzpatrick, 2015; Schreiner & Nelson, 2013).

Servant leadership may be one of the means that administrators at institutions of higher learning may be able to utilize in order to develop highly qualified teachers (Metzcar, 2008; Setliff, 2014). As the competition for online students continues to increase, servant leadership model may be the answer to attract and retain students until they complete their programs (Huber & Carter, 2014; Jacobs, 2011; Noland & Richards, 2015). If a relationship is found between individual servant leadership behaviors and student satisfaction, administrators and stakeholders could provide the necessary training for online instructors in order to help them understand and exhibit servant leadership characteristics. As such, institutions of higher learning will reap the benefits of increased student's satisfaction and retention and thus an increase in profits, which is essential for their survival in the highly competitive online environment. In light of the absence of any empirical research on the relationship between individual servant leadership behaviors and student satisfaction in an online classroom setting, this study filled a gap that currently exists in the literature. Furthermore, the results of this research provided the necessary evidence needed to support adopting servant leadership behaviors that contribute to student satisfaction in an online setting.

Definition of Key Terms

Altruistic calling (AC). Altruistic calling refers to the leader's deep-rooted hope and desire to make a positive impact on the lives of the followers by working hard to

meet their needs and by placing their interests first. Leaders with altruistic calling are committed to serve because they have an internal and an external call to serve and help others (Barbuto & Wheeler, 2006; Greenleaf, 1978; Wheeler, 2012).

Asynchronous online communication. Asynchronous online communication refers to the form of interaction between instructor and students that is not happening in real time and at their convenience using tools such as e-mail, threaded discussion boards, newsgroups to allow users to contribute. (Yamagata-Lynch, 2014; Kegelman, 2011)

Dimensions of servant leadership. Dimensions of servant leadership refer to the following five dimensions: (1) altruistic calling, (2) emotional healing, (3) wisdom, (4) persuasive mapping, and (5) organizational stewardship (Barbuto & Wheeler, 2006).

Distance education. Distance education refers to any classes that are provided to students who are not together in the same classroom setting. Distance education usually includes hybrid, synchronous, or asynchronous opportunities for students to learn. Furthermore, these classes may be delivered through the medium of interactive television, online classes, digital video disks, or via correspondence (Heinz, Martin, Doll, & Pearson-Scott, 2015; Tallent-Runnels, Thomas, Lan, Cooper, Ahern, Shaw, & Xiaoming, 2006).

Emotional healing (EH). Emotional healing refers to the leader's devotion and ability to help the followers' recovery from difficult and stressful circumstances; assist them in restoring their broken dreams. Emotional healing of the followers from distress is fostered through the leader's skill in being a good listener, empathetic, and caring (Barbuto & Wheeler, 2006; Greenleaf, 1977; Wheeler, 2012).

Faculty member/Instructor/Teacher. A faculty member is a member of a teaching staff who is employed at an educational institution (Garii & Naomi, 2006).

Leader. A leader refers to an individual who affects his followers' cooperation with the intention of influencing their engagement and achievement (Balwant, Birdi, & Stephan, 2014).

Online education. Online education refers to online learning delivered over the Internet and involves the use of computer-assisted or mediated instruction (Allan & Seaman, 2013). In online education, the instructors and the students are separated from traditional environments of face-to-face communication (Dykman & Davis, 2008).

Online learning. Online learning refers to courses that have at least 80% of their content delivered online using the Internet and a learning management system, and have no face-to-face meetings between the instructor and the students (Allen & Seaman, 2014).

Online learner satisfaction. Online learner satisfaction refers to the student's opinion of how well online classes were delivered, accepted, and valued in an online learning environment (Bollinger & Halupa, 2012; Gunawardena et al., 2010; Huber, 2014). Many researchers regard student satisfaction as an intricate construct that may lead to positive student motivation, retention, engagement, learning, and success (Bollinger & Halupa, 2012; Gunawardena et al., 2010; Huber, 2014; Kozub, 2010; McGlone, 2011; Noland & Richards, 2015).

Organization stewardship (OS). Organization stewardship refers to the leader's ability in building a community of trust within the organization that has the ability to

affect positively the larger society for the greater good. Servant leaders make this positive impact by providing programs and outreach opportunity that serves the community by giving back to it and leaving it better than it was (Barbuto & Wheeler, 2006; Greenleaf, 1977).

Persistence. Persistence refers to the student's ability to maintain continued enrollment toward earning a degree or certificate (Morris, Wu, & Finnegan, 2005).

Persuasive mapping (PM). Persuasive mapping refers to the leader's ability to learn from the past, understand the challenges of the present, and anticipate the potential results of future decisions. Leaders who are skilled in persuasive mapping have the ability of casting a vision for the future; mapping and conceptualizing issues; and persuading other to be involved to do things and achieve goals (Barbuto & Wheeler, 2006; Spears, 1995; Wheeler, 2012).

Servant leadership. Servant leadership refers to leaders who desire to serve their followers first by putting the follower's goals, needs, desires, and wellbeing above their own in order to generate a positive change among the followers (Greenleaf, 1977; Rachmawati & Lantu, 2014). Furthermore, Greenleaf stated that, "the servant leader's main aim is to serve first and then lead so as to help their followers to grow healthier, wiser, freer, more autonomous, and more likely themselves to become servants" (Greenleaf, 1977, p.13).

Student satisfaction with instructors (SS). Student satisfaction with instructors refers to the perceived value of student's online educational experience as students reciprocate with instructors (Bollinger & Erichsen, 2013; Gunawardena et al., 2010).

Synchronous communication. Synchronous communication refers to the form of interaction between instructor and students that is happening in real or same time using tools such as webcasting, chat rooms, video conferencing in order to emulate face-to-face teaching (Yamagata-Lynch, 2014; Kegelman, 2011)

Wisdom (WI). Wisdom refers to the leader's ability to observe, understand, and anticipate the consequences of their surroundings. Wise leaders have the ability to see a big picture by connecting the dots across the environment and organization as they decide the future goals and direction of the organization. Wise leaders have the ability to see what is needed in the present circumstances and how to meet these needs (Barbuto & Wheeler, 2006; Wheeler, 2012).

Virtual Learning Environments (VLEs). Virtual Learning Environments (VLEs) refers to one of the most commonly used computer-based technologies for teaching and learning where instructors and students are using computers and the Internet for the teaching-learning process that is based on active pedagogy, where the onus is mainly on the student for effective and regular participation in the class and for synchronous and a synchronous communication with the instructor (Garcia, 2015; Johannesen, 2013).

Summary

Online student satisfaction has become an important issue for institutions of higher learning because of the high rate of attrition among online students (Cole et al., 2014; Croxton, 2014; Huber, 2014; Kuo et al., 2014; Simpson, 2013). The quality of the instructor leadership in the classroom affects student satisfaction (Bogler et al., 2013;

Huber, 2014; Jacobs, 2011). Servant leadership may be a good fit for online learning and has the potential to benefit the teachers (the leaders) and their students (the followers) (Huber, 2014; Letizia, 2014; Nyamboli, 2014; Steele, 2010; van de Bunt-Kokhuis, & Weir, 2013).

The preceding chapter highlighted the need that currently exists for research in the area of online students' satisfaction and its relationship to the individual servant leadership characteristics. Furthermore, the purpose and theoretical framework for the current study were established. The research questions and hypotheses were presented. In addition, a clear definitions of the key terms used in this study were given. The knowledge gained from this study added to the existing servant leadership research in higher education and filled a portion of the gap that currently exists in the literature on the relationship between individual servant leadership behaviors and online student satisfaction. The results of this study may help higher education leadership in understating factors that affect online student satisfaction, which may be a factor in student retention and increased online enrollment.

Gaining a better understanding about the relationship between the servant leadership and student satisfaction may influence the way that pedagogy in higher education is perceived (Huber, 2014; Jacobs, 2011). The consensus of many scholars point to the positive effects of servant leadership in the classroom setting (e.g., Hays, 2008; Huber, 2014; Jacobs, 2011; Johnson & Vishwanath, 2011; Letizia, 2014; Nyamboli, 2014; Padron, 2012; Setliff, 2014; van de bunt-Kokhuis & Sultan, 2012; van de Bunt-Kokhuis & Weir, 2013). The benefits and principles of servant leadership have

been embraced and applied in many organizational settings, including corporations, churches, and educational institutions (Letizia, 2014; Shaw & Newton, 2014). However, the relationship between servant leadership and student satisfaction at a higher educational setting has been identified as one that needs more research (Jacobs, 2011; Huber, 2014; Nyamboli, 2014; Padron, 2012). This study evaluated the relationship between students' perception of their instructor's servant leadership style and the student's satisfaction with the online-instructor.

Chapter 2: Literature Review

Advances in information technology (IT) brought many changes to traditional education. Online classrooms are replacing the traditional on-campus classroom settings at an increasingly rapid rate (Allen & Seaman, 2016). Just as students are making changes to adapt to this virtual learning modality, educational leaders must also make the changes necessary to ensure student satisfaction with the online environment (Cole et al., 2014; Croxton, 2014; Huber, 2014; Nyamboli, 2014). An improved understanding of leadership behaviors of individual instructors will help university managers, instructors, and other stakeholders to design effective trainings to foster leadership qualities in educators teaching in the online environment. Improved leadership behaviors have the potential to improve student satisfaction and achievement in online education (Kranzow, 2013; Joo et al., 2011; Yates, 2011). Servant leadership behaviors, as exhibited by online instructors, have this potential to positively influence online education (Huber, 2014; Nyamboli, 2014; Reed & Swanson, 2014; van de bunt-Kokhuis & Sultan, 2012).

The purpose of this quantitative, correlational study was to evaluate the relationship between student perceptions of the instructor's servant leadership behavior and student satisfaction with the online instructor. In this brief literature review, support is provided for the suggested relationship between servant leadership and student satisfaction. The most important studies that address the concepts of servant leadership theory in higher education, online learning, and student satisfaction will be reviewed.

The majority of the literature in this review was published since 2010. However, older seminal works pertinent to the research have been included. As such, in order to

provide a logical synthesis of the current state of knowledge about servant leadership, and in order to provide a succinct argument for the hypotheses that framed the current research, the following themes will be discussed: (a) the need for servant leadership, (b) servant leadership versus transformational leadership, (c) history of servant leadership, (d) servant leadership as a theory, (e)servant leadership in the classroom, (f) criticisms of servant leadership, (g) online education, (h) student satisfaction with online education, and (i) a summary of this brief literature review.

Literature Search Strategy

In order to prepare this brief literature review, the *ProQuest, ERIC*, and EBSCOHost databases were utilized to locate scholarly sources and peer reviewed journals. Furthermore, resources from university libraries and a personal book collection were used in preparing this review. In addition, few search engines such as Google Scholar and Microsoft Academic were used. An exhaustive search on the related themes and concepts used in this study was conducted (e.g., online learning, distance learning, student satisfaction, servant leadership, servant leader, online satisfaction, e-learner satisfaction, asynchronous learning, Internet based learning, higher education retention, and virtual learning environments). The bulk of the literature in this review was published within the last five years; however, older seminal works that were pertinent to the research were included. The review is organized by the predictor variables of servant leadership (the five facets of perceived servant leadership behavior as measured by the SLQ: including altruistic calling, emotional healing, wisdom, persuasive mapping, and

organizational stewardship and the criterion variable of student satisfaction (as measured by the SET).

The Need for Servant Leadership

The success of any organization is largely dependent on the quality of its leaders (Northouse, 2013; Valdiserri & Wilson, 2010). Therefore, leadership research has always played a prominent role in the behavioral science field (Letizia, 2014; Parris & Peachey, 2013). Leadership is a skill used to affect followers through an intentional change process in which leaders and followers work together to achieve a common purpose driven by a common vision that binds them together and provides a basis for their relationship (Letizia, 2014; Steffens, Haslam, & Reicher, 2014). However, this vision, influenced by a humble desire to serve, is first seen by the leader, who then encourages and rallies others to join the leader in pursuing the vision for the good of the followers (Hajjaj, 2014; Garcia, 2015; Letizia, 2014).

Leadership research has evolved since the early 20th century with the emergence of newly identified leadership styles, including transformational leadership, charismatic leadership, servant leadership, authentic leadership, and e-leadership (Allio, 2013; Garcia, 2015; Goncalves, 2013; Northouse, 2013). The focus of leadership research is no longer only on the leader and his power, but also on the followers, the working environment, circumstances, and the cultural settings in which leadership takes place (Allio, 2013; Avolio et al., 2009; Northouse, 2013). One particular style of leadership that has captured the attention of researchers across many cultures is servant leadership (Irving, 2010; Letizia, 2014).

Styles of leadership commonly found in higher education, such as transactional leadership and laissez-faire leadership are limited in their leadership potential. These styles are leader-centered and do not empower others to be involved in working together for the common good (Wheeler, 2012). There is a need to recapture the vision and passion that ignited the early excitement about becoming servants in the field of education (Letizia, 2014; Guillaume et al., 2013; Shaw & Newton, 2014). This gap in higher education leadership can be filled by having a leadership style that will transform educational institutions and thus restore the public confidence in higher education, foster long-term commitments, and nurture a work environment in which people thrive as they provide service to others (Letizia, 2014; Noland & Richards, 2015; Shaw & Newton, 2014; Paul & Fitzpatrick, 2015; Wheeler, 2012). Servant leadership is that kind of leadership style.

Servant Leadership Versus Transformational Leadership

Transformational leadership has become one of the most effective styles of leadership in recent years (van Dierendonck, Stam, Boersma, de Windt, & Alkema, 2014); a force in the field of leadership studiers (Holt & Marques, 2012); and the most studied among leadership theories (Dionne, Gupta, Sotak, Shirreffs, Serban, Hao & Yammarino, 2014). The leadership literature outlines several key characteristics of transformational leadership. These characteristics are: (a) effective use of planning, directing, organizing, and controlling; (b) promoting trust and support among individuals and encourage them to make sacrifices for the organization; and (c) leaders are considered charismatic, using their personal power to achieve the goals of the

organization (O'Connor & Mortimer, 2013). Transformational leaders influence their followers through intellectually stimulating them; giving them individual attention and consideration; and providing full support for the members of the organization (van Dierendonck, 2011).

Although there are similarities between servant leadership and transformational leadership, there are primary differences between these two styles of leadership. The transformational leaders' primary focus is on the wellbeing of the organization, and their attention is focused on building a commitment towards the organization and its objectives, while the servant leaders' attention is mainly on the wellbeing of the followers as of first importance (Letizia, 2014; Northouse, 2013; van Dierendonck et al., 2014). Furthermore, servant leadership theory, with its explicit focus on humility, trust, caring, integrity, empowering, serving others' needs, authenticity, and the growth followers, sets itself apart with these foci from transformational leadership theory, where these characteristics are not as explicit (Fotch & Ponton, 2015; Choudhary, Akhtar, & Zaheer, 2013; Paris & Peachy, 2012; Shaw & Newton, 2014; van Dierendonck, 2011; van Dierendonck et al., 2014). This distinction of servant leadership from transformational leadership theory is evident when comparing the moral intent of leaders, the various roles of leaders or followers, anticipated outcomes, and the level of analysis (Barbuto and Wheeler, 2006) as shown in Table 1.

Table 1

Comparing Servant Leadership and Transformational Leadership Theories

Construct	Servant leadership theory	Transformation leadership theory	
Nature of theory	Normative	Normative	
Role of leader	To serve followers	To inspire followers to	
		peruse organizational goals	
Role of follower	To become wiser, freer,	To pursue organizational	
	more autonomous	goals	
Moral component	Explicit	Unspecified	
Outcome expected	Followers satisfaction,	Goal congruence; increased	
	development, and	effort, satisfaction, and	
	commitment to service,	productivity; organizational	
	societal betterment	gain	
Individual level	Desire to serve	Desire to lead	
Interpersonal level	Leader serves follower	Leader inspires follower	
Group level	Leader serves group to	Leader unites group to	
	meet members needs	pursue groups goals	
Organizational level	Leader prepares	Leader inspires followers	
	organization to serve	to pursue organizational	
	community	goals	
Social level	Leader leaves a positive	Leader inspires nation or	
	legacy for the betterment	society to pursue	
	of society	articulated goals	

Note: Adapted from "Scale development and construct clarification of servant leadership," (p. 305) by J. E. Barbuto and D. W. Wheeler, 2006. *Group & Organization Management*, 31(3), 300–26. Used with permission.

History of Servant Leadership

While most of the contemporary leadership theories focus on what the leaders do for the benefit of organization, servant leadership theory is distinguished by its focus on what the leaders do to ensure the wellbeing of the followers (Parris & Peachey, 2012; van Dierendonck et al., 2014). With traits such as listening, empathy, healing, vision, humility, service, commitment to the growth of people, building community, and

stewardship, servant leaders have the potential to positively impacting their followers, and thus have the potential for having a long-term impact on both life and work (Finley, 2012; Hajjaj, 2014; Spears, 1998).

Although most of the contemporary literature considers Robert Greenleaf as the grandfather of servant leadership (Padron, 2012), the Bible suggests that the practice of servant leadership is not a new concept (Parris & Peachey, 2013). In the Bible, servant leadership can be traced back to Moses. The Bible states regarding Moses, "Now Moses was a very humble man, more humble than anyone else on the face of the earth" (Numbers 12:3, King James Version). Furthermore, in the same chapter, Moses is referred to as "servant" (Numbers 12:7-8, King James Version). In addition to Moses, the Bible also highlights Jesus Christ as a pinnacle servant leader, who taught his followers that "the Son of Man did not come to be served, but to serve" (Matt. 20:28, King James Version). Jesus Christ, who is considered by many as the zenith of servant leadership, demonstrated real, practical, and effective leadership style for various situations, organizations, and people and encouraged them to do the same (Greasley& Bocârnea, 2014; Padron, 2012; see also Matthew 23:11: King James Version). Jesus was a strong and effective teacher who modeled many of the above-mentioned traits of servant leadership (Greasley & Bocârnea, 2014; Huber, 2014; Jacobs, 2011). These traits attracted many followers. However, in order to have servant leadership qualities, there are no prerequisites such as being a follower of a particular creed, religion, or religious institution (Wheeler, 2012). For example, servant leadership can be found in Buddhism,

Confucianism, Hinduism, Taoism and Islam (Hirschy, Gomez, Patterson, & Winston, 2014; Huber, 2014).

As mentioned above, Greenleaf (1977) is considered by many scholars to be the founder of the contemporary concept of servant leadership (Parris & Peachey, 2013). Following a successful 40-year career with AT&T, Greenleaf published *The Servant as a* Leader in 1970. This idea of the servant as a leader came partly from Greenleaf's personal experience as a leader working to influence large organizations (Spears, 1998). Greenleaf was also influenced by Herman Hesse's (1956) short novel, *Journey to the* East, which Greenleaf read in the 1960s. In this novel, the mysterious character Leo was the servant of a group of pilgrims who set on a spiritual quest to the East. During this journey, Leo performed menial tasks but also was able through his music and words to uplift and inspire his companions with his infectious spirit. The journey was successful until the mysterious disappearance of Leo, after which the group disbanded and the journey was abandoned. Later, the narrator of the story, who had also been one of the original pilgrims to the East, discovered that Leo was actually the visionary, inspiring, and noble leader of the order that had sponsored the spiritual pilgrimage to the East (Greenleaf, 1977).

In 1977, Greenleaf published his classical essay, "The Servant Leader," in which he introduced the term servant leadership (Greenleaf, 1977). Greenleaf (1977) suggested that service was an essential requirement to leadership and that service began with the natural feeling that one wanted to serve, to serve first, before desiring to lead. Greenleaf postulated that the essence of leadership was service. Furthermore, Greenleaf suggested

that the best test for the servant leader was to evaluate whether the individuals being served grew as individuals while they were being served. Greenleaf suggested that individuals following a servant leader "become healthier, wiser, freer, more autonomous, more likely themselves to become servants" (p. 7). Greenleaf also presented the question of the effect of servant leadership on the least privileged members of society. According to Greenleaf, these members of society should benefit or, at least, not be further deprived because of the work of the servant leader. Greenleaf (1977) viewed servant leadership not as a set of techniques or things to do but as a way of being, living, and influencing (Wheeler, 2012). Most of the writing on servant leadership from the publication of Greenleaf's seminal work until 2014 generally focused on efforts to conceptualize and operationalize the concept of servant leadership and on providing frameworks and measurement tools to test servant leadership theory empirically.

Servant Leadership as a Theory

Although servant leadership is practiced in many organizational contexts such as non-profit and for profit, there is still a paucity of empirical research that examines servant leadership theory in an organizational setting (Pariss & Peachey, 2013).

Furthermore, the theory of servant leadership is still under-defined with no consensus on its definition among scholars (Focht & Ponton, 2015; van Dierendonck, 2011).

Greenleaf, who coined the term servant leadership and is considered the grandfather of it, gave only a description of servant leadership when he stated, "it begins with the natural feeling one wants to serve, to serve first. Then conscious choice brings one to aspire to lead" (Greenleaf, 1977, p. 27). This lack of a clear definition of servant leadership has

resulted in many conceptual frameworks and measurement tools to empirically test servant leadership (van Dierendonck, 2011); yet despite this lack of consensus among scholars, servant leadership remains a viable and a tenable leadership theory that has the potential to positively transform organizations and individuals (Parris & Peachey, 2013).

In the current leadership milieu, the views on leadership behavior are changing because of the recent demands for a more ethical and people centered leadership style, particularly after the leadership scandals of Enron, WorldCom, and Tyco; therefore, servant leadership theory with its focus on ethical and authentic leadership may be the answer to what organizations need (van Dierendock, 2011). When compared with other leadership theories, servant leadership is considered by many researchers as distinct. For example, although many other leadership theories partially or individually address areas such as honesty, integrity, morality, authenticity, people centered leadership, and spirituality, these traits are combined under servant leadership theory (Darth & West; Sendjaya & Cooper, 2010). Furthermore, servant leadership is unique among other styles of leadership in its focus on the needs and desires of the followers; it emphasizes the empowerment, growth, and personal development of the followers, where the focus is on the needs of followers before the needs of the leader (Liden et al., 2015; Stewart, 2012). This emphasis stands in contrast to other leadership theories where the focus is on the leader and the well-being of the organization rather than followers (Jacobs, 2011; Rachmawati & Lantu, 2014). This follower-oriented attitude fosters an environment of strong relationships where the followers are encouraged to become the best they can for the good of the organization (van Dierendonck, 2011).

According to Greenleaf (1977), the servant leader is first among equals, who does not exercise his authority to coerce followers to perform, but rather uses persuasion. Servant leaders consider their power and authority as an opportunity to serve others, and as such serving and leading becomes almost interchangeable (van Dierendonck, 2011). Furthermore, servant leaders find their fulfilment and motivation not in the exercising of power over their followers but in serving them and seeing them grow as persons (Letizia, 2014; Thompson, 2014). According to Greenleaf (1977), this commitment to service first is a key requirement of good leadership.

An extensive discussion in the academic literature reviews is devoted to the principles, behaviors, and characteristics of servant leaders; and how these traits influence the effectiveness of the leader (Darth & West, 2014; Parris & Peachey, 2013; Rachmawati & Lantu, 2014; Thompson, 2014; van Dierendonck, 2011). Buchen (1998) posited that one of the essential themes of servant leadership is its focus on relationship building. Presented as a suggested model for addressing the essential transformational needs of higher education, Buchan (1998) argued that Greenleaf's (1977) model of servant leadership provides a new framework for institutions of higher education and its faculty. In light of the growth of online education, the need for quality leadership among instructors that focuses on building relationships between teachers and students is becoming increasingly important because the sense of isolation that online students feel (van de Bunt & Sultan, 2012).

Based upon the writings of Greenleaf, Spears (1995) identified 10 characteristics of servant leadership. Spears (1995) is considered the first person who was able to distill

the ideas of Greenleaf into a model that describes servant leadership in precise terms (van Dierendonck, 2011). These 10 characteristics are listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of people, and building a community. Although Spears (2005) was able to crystalize Greenleaf's ideas, he did not go far enough to operationalize these characteristics, which made it difficult to have an empirical study that is valid and reliable, based on them (Peachy & Parris, 2012). Spears (1995) stated that all of these values are needed so that each servant leader will have the tools necessary to rebuild a viable community for a large number of people, and thus lead the way by showing their commitment to the well-being and growth of the members of their community.

Whereas Spears identified 10 characteristics of servant leadership based on the seminal servant leadership work of Robert Greenleaf, other experts have suggested that servant leadership consists of a smaller subset of characteristics. For example, Farling, Stone, and Winston, (1999) put forward the following dimensions of servant leadership: vision, trust, service, influence, and credibility. These five dimensions served as the framework for many future empirical investigations and models of servant leadership. These investigations and models are divided into two categories, the first is the leader-organization models (Laub, 1999; Russell & Stone, 2002; Wong & Page, 2003), and the second is the leader-follower model (Barbuto & Wheeler, 2006; Patterson, 2003; van Dierendonck & Nuijten, 2011; Winston, 2003). An example of the leader-organization model was developed by James Laub. Laub's (1999) model identified six characteristics of servant leaders based on an extensive literature review. These characteristics are:

valuing people, developing people, building community, displaying authenticity, providing leadership, and sharing leadership. As a result of his research, Laub (1999) developed the Organizational Leadership Assessment (OLA) instrument to measure the level of servant leadership in an organization. The OLA instrument and its variations have been used in many empirical research studies on servant leadership (Parris & Peachey, 2013). Conversely, an example of the leader-follower model was developed by Barbuto and Wheeler (2006). Based upon Greenleaf's (1977) seminal work on servant leadership and on Spears 10 characteristics of a servant leader, Barbuto and Wheeler (2006) developed the Servant Leadership Questionnaire (SLQ) instrument. Barbuto and Wheeler kept Spears' (1995) 10 characteristics; however, based upon their review of Greenleaf's (1977) seminal work, they also added a new construct, calling, to Spears (1995) original 10 constructs. However, after a panel of 11 expert judges performed face validity testing, a sampling of 80 elected community leaders and 388 raters, and varimax rotation, only a five factors model emerged, as opposed to 11 originally proposed by Barbuto and Wheeler (2006). These constructs include the following servant leadership characteristics: altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship. In the current study, the SLQ was used to measure servant leadership at the individual level.

Although many existing models have been used to investigate servant leadership (see Table 2), the relationship between the leadership behaviors of individual instructors and student satisfaction in online environments remains unclear (Huber, 2014; Jacobs, 2011; Nyamboli, 2014; Padron, 2012). The concepts and tenets of servant leadership

may be applied to classroom settings with a positive influence on the educational experience of both instructors and students (Huber, 2014). These concepts have been applied in the business world, with favorable results among the followers (Jones, 2012; Van Winkle, Allen, De Vore, & Winston, 2014). Similarly, applying these concepts in the classroom setting, particularly in an online environment, would have the potential to affect both the role of online instructors and higher education andragogy (Crippen, 2010; Johnson & Vishwanath, 2011; Huber, 2014; Nyamboli, 2014; Reed & Swanson, 2014; van de Bunt-Kokhius & Sultan, 2012). Without this information, online university administrators and instructors may lack information they need to maximize student satisfaction with their instructor (Kranzow, 2013) and thus to maximize student achievement (Joo et al., 2011).

Table 2
Summary of Servant Leadership Models

Model	Number of items	Population samples	Key attributes (subscales)	Methodology	Internal consistency
Laub (1999)	60	847 individuals from 41 organizations	Shares leadership Values people Provides Develops people leadership Displays authenticity Builds community	Literature review; Delphi study of experts; exploratory factor analysis	.90 to .93
Wong & Page (2003)	97	1,157 individuals	Leading Developing others Servanthood Visioning Team-building	Literature review and personal experience	Not reported

			Shard decision making Empowering others Egotistic pride Integrity Abuse of power		
Dennis & Bocarnea (2005)	23	250, 406, and 300 individuals from various backgrounds	Empowerment Trust Humility Agape love Vision	Literature review and exploratory factor analysis	.89 to 392; not reported for 3-item scales
Barbuto & Wheeler (2006)	23	388 individuals rating leaders in leadership training seminar	Altruistic calling Emotional healing Persuasive mapping Organizational stewardship, Wisdom	Literature review and expert panel	.82 to .92
Model	Number of items	Population samples	Key attributes (subscales)	Methodology	T continued
Wong & Davey (2007)	62	24 leaders, self-rating; 1,157 individuals from various backgrounds	Serves and develops others Consults and involves others Humility and selflessness Modeling integrity and authenticity Inspires and influences others	Literature review; exploratory factor analysis; conformity factor analysis	Not reported
			GHICID		(continued)

Liden et al., (2008)	28	undergraduate students; 182 individuals employed at production and distribution company	Empowerment Helping subordinates grow and succeed Emotional healing Behaving ethically Conceptual skills Putting subordinates first Creating value for the community	Literature review; exploratory factor analysis; conformity factor analysis	.76 to .86
Sendjaya et al., (2008)	35	277 graduate students	Transforming influence Voluntary subordination Authentic self Transcendental spirituality Covenantal relationship Responsible morality	Literature review, expert panel, and semi- structured interviews	.72 to .93
Model	Number of items	Population samples	Key attributes (subscales)	Methodology	Internal
van Dierendonck & Nuijten (2011)	30	1,571 individuals in eight samples from two countries with varied occupations	Empowerment Humility Standing back Authenticity Forgiveness Courage Accountability Stewardship	Literature review; interviews with experts; exploratory factor analysis; conformity factor analysis	continued)

Liden et al., (2015)	7	vidents, 218 graduate students, 218 graduate students, 552 leader-follower dyads from 11 organizations with total of 71 teams	Creating value for the community Emotional healing Conceptual skills Empowering Helping subordinates grow and succeed Behaving ethically Putting subordinates first	Literature review; exploratory factor analysis; conformity factor analysis; positive correlation with SL-28	.78 to .97
----------------------	---	---	---	---	------------

Note: Adapted from "Servant leadership: A review and synthesis," (p.1240-1241) by Dirk van Dierendonck, 2011. *Journal Of Management*, 37(4), 1228-1261. Used with permission.

Servant Leadership in the Classroom

The principles of servant leadership have been embraced and applied in many organizational settings, including corporations, churches, and educational institutions (Noland & Richards, 2015; Letizia, 2014; Paul & Fitzpatrick, 2015; Shaw & Newton, 2014). Leaders of educational institutions in particular were interested in servant leadership because of the positive and productive environment that this form of leadership created in the business world (Huber, 2014; Jacobs, 2011; Nyamboli, 2014; Noland & Richards, 2015; Paul & Fitzpatrick, 2015; Shaw & Newton, 2014; Letizia, 2014). Greenleaf (1977) envisioned the effect of servant leadership on higher education when he wrote the book *Teacher as Servant*, a parable about a college professor who led and encouraged a group of college students to create a culture in which all benefited and no person was left behind. Greenleaf believed that teachers in particular had the

opportunity and the privilege to serve their students and to affect their lives deeply and that ultimately these students would become servants of others as well, giving purpose and renewed hope to those they served.

In his book, *Teacher as Servant*, (Greenleaf, 1982) introduced the concept of servant teachership, a concept that many researchers have used subsequently (e.g., Huber, 2014; Jacobs, 2011; Johnson & Vishwanath, 2011; Letizia, 2014; Noland & Richards, 2015; Padron, 2012; Reed & Swanson, 2014; van de bunt-Kokhuis & Sultan, 2012). The consensus of many of these scholars' points to the positive effects of servant leadership in the classroom setting. Effects of servant leadership include a more student-centered pedagogy, community building, focusing on meetings the students' needs rather than wants, accepting and valuing students, practicing patience and tolerance, and collaborative learning for both face-to-face and online settings (Hannay, Kitahara, & Fretwell, 2010; Huber, 2014; van de bunt-Kokhuis & Sultan, 2012). Some scholars empirically tested the applications of servant leadership theory in a face-to-face classroom setting. For example, Drury (2005) researched the relationship between 18 key characteristics of servant leadership and effective teaching from students' perspective. Drury (2005) noted that students perceived their most effective instructors as the ones who exhibited a servant leader mindset in the classroom. These findings were based on a research study Drury (2005) conducted at a private university setting where a convenience sample of 87 undergraduate college students completed a survey based on 18 characteristics of Laub's (1999) operational definition of servant leadership. However, an inherit weakness in this study is the fact that only 18 characteristics of the

Laub's (1999) Organizational Leadership Assessment (OLA) were used and not the entire instrument. Furthermore, the OLA is designed to measure servant leadership at the organizational level and is not designed to be used as a self-assessment of an individual leader (Laub, 1999).

Another example that points to the positive effects of servant leadership is the research study conducted by Metzger (2008). Metzger (2008) showed a strong positive relationship between effective teaching and servant leadership. Using a sample of 764 National Board Certified Teachers (NBCTs) from preschool through 12th grades, 93.72% of these teachers labeled themselves as a servant leaders using the Teacher Leadership Assessment instrument (TLA), which is a modified version of Laub's (1999) Organizational Leadership Assessment OLA. An inherit problem with the OLA is that Laub's (1999) research showed that leaders normally rate themselves higher. As such, in Metzger (2008) study, teachers assessed themselves without any feedback from the individual followers (the students). In a similar study, Jacobs (2011) conducted a nonexperimental correlational study on the relationship between the level of perceived servant leadership and effective teaching in a private university setting. The TLA was distributed to 325 instructors with only 68 who completed the survey. Based on the Spearman rank correlation, there was not a statically significant correlation between servant leadership and effective teaching with r_s =.14, p=.253. Jacobs (2011) findings were inconsistent with the findings of Druray (2005), Metzger (2008), and the servant leadership literature, which all suggested that when instructors exhibit servant leadership behaviors in the classroom the result is higher level of student satisfaction.

Conversely, servant leadership principles were found to be as effective for higher education online learning, and applying these principles have the potential to transform both the student and the teacher (Huber, 2014). In a qualitative case study, Huber (2014) used triangulation of interviews and analysis of course artifacts to conduct this study. Three instructors, who taught at least for two years in a graduate-level online servant leadership classes at a university setting in the United States, participated in this study. The analysis of these interviews, discussion board, and student feedback provided evidence of effective educational experience for students (Huber, 2014). This study of servant leadership may assist online teachers and administrators in understanding the factors that may enhance the instructor's effectiveness and the student's success. However, this study had few limitations. The first limitation is that the participants in the study had a previous knowledge of servant leadership, which may bias the results. The second limitation is that the students who participated in the study were all graduate students, thus the results may be have been different if undergraduate students participated in this study.

As seen from the above examples, servant instructors are teachers who practice servant leadership principles in the classroom. Servant teachers work to raise standards and expectations in the classroom and aim to be effective teachers (Black & William, 2010; Jacobs, 2011; Huber, 2014; Noland & Richards, 2015; Setliff, 2014). Rather than focusing on what is being taught, servant teachers concentrate on improving student outcomes (Huber, 2014; Noland & Richards, 2015). Servant teachers thereby translate knowledge into action. Learning then becomes self-directed and experiential, fostering a

lifelong learning behavior among the students (Cerit, 2010; Crippen, 2010). Greenleaf (1982) foresaw that influential teachers should have the ability to listen, empathize, heal, be aware, persuade, conceptualize, be a good steward, have foresight, have a commitment to the growth of people, and build a community of trust. All of these characteristics of servant teaching are included in the current study as dimensions of servant leadership to be measured at the individual leader level rather than at the organizational level (Barbuto & Wheeler, 2006). A summary of these characteristics follows.

Listening. Leaders must have the ability to understand their followers in order to best serve their needs (Beck, 2014). One of the most critical and forgotten skills that servant leaders must have is their ability to listen in order to effectively communicate with their followers (Hunter, Neubert, Perry, Witt, Penney, & Weinberger, 2013). The ability of the leaders to listen is a characteristic that emerges in many proposed servant leadership models (Beck, 2014; Pariss & Peachey, 2013; Fotch & Ponton, 2015). Listening is a chief characteristic of a servant leader and a foundation for servant leadership (Jacobs, 2011; Paul & Fitzpatrick, 2015). Effective leaders listen first, seeking to understand before they are understood. This process creates an environment of trust in which major stakeholders can share their ideas and concerns (Barbuto & Wheeler, 2006; Letizia, 2014). Servant leaders grow individually first through their ability to listen to their own internal voices, reflect, and meditate (Crippen, 2010; Stewart, 2012).

Teachers who exhibit servant leadership listen to their inner voices and to their students as well (Hannay et al., 2010). Servant teachers are careful to provide classroom activities that promote keen listening skills and stimulate reflection among students

(Crippen, 2010; Noland & Richards, 2015). Similarly, in the online classroom setting, it is even more important that the teachers listen well because of the lack of face-to-face interaction in traditional classroom settings (Hubber, 2014; van de Bunt-Kokhuis & Sultan, 2012).

Empathy. Empathetic and caring servant leaders see the reality of circumstances through the eyes of the followers (Fotch & Ponton, 2015; Stewart, 2012). People need to be accepted and recognized for their unique abilities and contributions (Spears, 1995). Instructors who practice empathy aim to develop positive relationships with students through caring, acceptance, showing compassion, and authentically valuing the students' contributions (Crippen, 2010; Noland & Richards, 2015). Empathy enables servant leaders to take into consideration not only their own emotions but also the followers' feelings before making decisions (Jacobs, 2011). Empathetic servant teachers downplay their own positional authority in the classroom and work to create a trusting environment in which synergy and transformational learning take place (Crippen, 2010; Steel, 2010). In an online milieu, servant teachers who exhibit empathy are able to celebrate diversity and to give room for students' ideas, opinions, and interests, being aware that attitudes, behaviors, and expectations differ from culture to culture (van de Bunt-Kkhuis & Sultan, 2012).

Persuasion. Persuasion is a key trait that distinguishes servant leadership from traditional leadership styles that depend on position and authority. Servant leaders seek to rely on persuasion, building consensus, explaining, and reasoning rather than on coercion (Barbuto & Wheeler, 2006; Crippen, 2010; Fotch & Ponton, 2015; Noland &

Richards, 2015; van Dierendonck, 2010). In this way, leaders are able to gain the trust, loyalty, and respect of the followers for the organization and its mission (Fotch & Ponton, 2015). Effective servant teachers are expected to use persuasion as a tool in the classroom to build a community of trust and help the students achieve their educational goals (Stewart, 2013).

Servant teachers understand that to endure, positive change in students must come from within. Therefore, servant teachers are willing to share power in the classroom to build consensus and persuasion rather than using their sole authority to create temporary change among students (Crippen, 2010). By taking the time needed to listen to students, servant teachers are able to know what matters most to their students and why. Servant teachers therefore seek to understand the students' motivation, attitudes, and beliefs (Paul & Fitzpatrick, 2015). Servant teachers then have gained the right to be understood and are able to persuade students to change (Hays, 2008; Letizia, 2014; Thompson, 2014).

Conceptualization. In addition to persuasion and consensus, servant leaders have the ability for progressive thinking by conceptualization: by going beyond the immediate to the future and by seeing the larger picture (Crippen, 2010; Johnson & Vishwanath, 2011). Whereas transactional leaders are occupied mainly with day-to-day goals (Daft, 2010), servant leaders attend to these goals without losing sight of the broader picture (Jacobs, 2011; Nyamboli, 2014). As such, effective teachers who exhibit conceptual thinking help their students cultivate long-term goals and values while they are working on their own professional growth (Noland & Richards, 2015; Ren, 2010). In this way, these teachers are better able to help and guide their students. Servant teachers'

help their students become aware of the complexities of the issues they face in life and provide the tools that will help the students work through those issues (Hays, 2008). Servant teachers make students aware that the simplest solution is not necessarily the best course of action for complex situations (Hays, 2008).

Servant teachers seek to impart wisdom and not only knowledge (Greenleaf, 1977; Setliff, 2014). Wisdom is the application of knowledge gained in real-life situations. In these situations, servant teachers demonstrate cognizance of their environments and are able to predict future consequences through cues from observing their surroundings (Barbuto & Wheeler, 2006).

Commitment to the growth of people. Servant teachers are interested not only in their own growth but also in the growth of their students (Letizia, 2014; Sipe & Frick, 2009). The aim of servant teachers is that their students become healthier, wiser, and servants of their community "by speaking those few words that might change the course of life, or give a new purpose" (Greenleaf, 1977, p. 5). This commitment to growth shown by servant teachers is a core issue in the nature of teaching (van de Bunt-Kokhuis & Sultan, 2012). Ensuring that other people grow is the ultimate goal of servant leadership because it helps the followers become autonomous and less dependent on the leaders (Noland & Richards, 2015; Northouse, 2013; Paul & Fitzpatrick, 2015).

Servant leaders seek to identify the needs of the followers and help meet those needs even beyond the regular job responsibilities (Barbuto & Wheeler, 2006; Black, 2010; Nyamboli, 2104). This behavior will foster strong relationships between leaders and followers and thus positively affect the organization (Shaw & Newton, 2014;

Wheeler, 2012). Servant teachers provide the necessary ingredients that students need to grow academically, personally, socially, and spiritually (Letizia, 2014; Crippen, 2010).

By modeling servant leadership, servant teachers show that they are lifelong learners, seek what is best for students first, encourage ongoing feedback from students, hold themselves accountable for the growth of their students, empower others, and celebrate the strengths and accomplishments of their students (Crippen, 2010; Johnson & Vishwanath, 2011; Noland & Richards, 2015; Steel, 2010). Servant teachers put others' interests ahead of their own and have a deep-rooted desire to make a positive and lasting difference in the lives of their followers (Barbuto & Wheeler, 2006; Greenleaf, 1977). This commitment to the growth of others is the leader's altruistic calling (Barbuto & Wheeler, 2006).

Emotional healing. Servant teachers have the ability and commitment to foster an environment of recovery from hardship or trauma by displaying kindness and concern for others (Barbuto & Wheeler, 2006; Fotch & Ponton, 2015; Huber, 2014; Paul & Fitzpatrick, 2015). Servant teachers are sensitive to the emotional pain that students may be experiencing. They also help in creating a safe place for students to voice individual and professional concerns (Crippen, 2010; Hays, 2008; Noland & Richards, 2015). Although they keep students responsible for their actions, servant teachers provide students with the skill and knowledge necessary for the healing process (Steel, 2011). Healed students feel empowered to move on to achieve their goals and realize their potential (Johnson & Vishwanath, 2011). Such servant leaders consider the holistic growth and development of others as a priority (Beck, 2014; Hunter et al., 2013).

Building community. Servant leaders are dedicated to the growth of their follower and understand that this growth happens within a community. Building a community is an essential component of the organizational stewardship practiced by servant leaders (Barbuto & Wheeler, 2006; Fotch & Ponton, 2015; Nyamboli, 2014; Northouse, 2013). Servant leaders recognize the danger of losing community in the context of larger institutions (Stewart, 2013). Servant leaders do not allow the natural move to a larger organizational setting to destroy the sense of community (Spears, 1995). Instead, they seek to build communities of individuals by highlighting the contribution of these individuals as vital to health and mission of the larger organization.

The need to build community is essential to the success of online learning, an environment in which modern technologies have transformed the way in which teachers teach and interact with their students (Garcia, 2015; Reed & Swanson, 2014; van de Bunt-Kokhius & Sultan, 2012). Indeed, low levels of personal interaction between teachers and students in an online educational community appear to be a key factor contributing to low retention rates (Komarraju et al., 2010). However, when teachers strive to build a community of nurturing relationships with their students, students display better learning outcomes and higher levels of academic achievement and satisfaction (Espasa & Meneses, 2010; Komarraju et al., 2010; Kuo, Walker, Schroder, & Belland, 2014).

Servant leadership, with its focus on community building, trust, compassion, dedication to the growth of people, building meaningful relationships, and empathy, is well suited to reconcile an environment of high technology with personal interaction in

an online environment (Reed & Swanson, 2014; van de Bunt-Kokhius & Sultan, 2012). Like servant leaders, effective servant teachers build a community of learning that authentically values students and helps them achieve their own individual goals (Stewart, 2013). When leading and teaching in an online setting, servant leaders can build a sense of community through virtual teams that foster inclusion, information sharing, trust, meaningful relationships, and equal access (Berry, 2014; Huber, 2014; Reed & Swanson, 2014).

For this virtual learning community to function effectively amid the challenges of divergent talents and cultures, the essential elements of honesty, responsiveness, relevance, respect, openness, and empowerment must be present among faculty members (Berry, 2014; Palloff & Pratt, 2007). These traits, which are necessary for the success of online education, tend to receive little attention in the online pedagogical experience (Palloff & Pratt, 2007). To succeed, members of online elearning communities must consider these traits. Therefore, servant leadership, with its emphasis on many of these traits, is positioned to be a valuable leadership style for online faculty members (Reed & Swanson, 2014; van de Bunt-Kokhius & Sultan, 2012).

Servant Leadership in Higher Education

Most research on leadership theories is focused on business organizations rather than on institutions of higher education (Jacobs, 2011; Padron, 2012). Leadership theories from the business sector have not been documented to work in postsecondary education. This is due to the fact that faculty members tend to be regarded more as constituents than as followers with complex organizations and multiple subcultures and

because of the interdisciplinary nature of leadership itself (Dean, 2014; Andenoro, 2013). Therefore, improving the understanding of optimal leadership styles in a postsecondary online learning environment may have a great effect on the viability of higher educational institutions. This effect is seen in terms of the relationship between faculty members and administration; and in terms of the effect of the leadership style of instructors on students and their satisfaction (Huber, 2014; Padron, 2012; Paul & Fitzpatrick, 2015; Nyamboli, 2014).

Institutions of higher education cannot survive without students. The higher the student enrollment, the more stable and viable these institutions become. Increased enrollment can help institutions of higher education in the context of a challenging economy and is considered crucial for the long-term strategy and viability of these institutions (Amirault, 2012; Jacobs, 2011). Therefore, the question of how to accomplish the goals of increased student enrollment, retention, and satisfaction has become a major and a strategic issue for many administrators at institutions of higher education in the United States (Allen & Seaman, 2013; Agbetsiafa, 2010; Huber, 2014; Padron, 2012; Nyamboli, 2014; Watts, 2015). To meet these goals, effective faculty leadership may be the most important factor (Bogler et al., 2013; Garcia, 2015; Hassan & Yau, 2013; Letizia, 2014; Livingston, 2011; Noland & Richards, 2015; Padron, 2012; van de Bunt-Kokhius & Sulatan, 2012; Wheeler, 2012; Yates, 2011). However, in online educational environments, most of the focus has been to provide a state-of-the-art technology designed for the optimal delivery of the educational content for the students (Ali & Ahmad, 2011; Green, 2014; Shepers, Wetzels, & Ruyter, 2005; Trompenaars &

Voerman, 2010; van de Bunt-Kokhuis & Sultan, 2012). A comparable focus on the role of leadership in this process has been missing (Bogler et al., 2013; Garcia, 2015; Huber, 2014; Jacobs, 2011; Nyamboli, 2014; Yates, 2011).

Student adoption of online learning at institutions of higher education is affected not only by the use of technology but also by the leadership style and the teaching effectiveness of faculty members (Bogler et al., 2013; Garcia, 2015; Hassan & Yau, 2013; Huang, & Chang, 2012; Livingston, 2011; Huber, 2014; van de Bunt-Kokhuis & Sultan, 2012; Yates, 2011). Faculty effectiveness includes the ability of the instructors to understand their main role in teaching online. This main role is no longer to be the tutor but to be the facilitator, the coach, the guide for their learning experience, and the mentor of online students (Huber, 2014; Mark, 2013; Thompson, Jeffries, & Topping, 2010).

There is a need to find the style of leadership that provides this balanced approach for online faculty in their roles as facilitators and mentors. Leadership in higher education is becoming increasingly dominated by corporate business practices not suited to the academic environment (Wheeler, 2012). Therefore, discovering a leadership style that would retain the best practices of higher education and simultaneously include suitable business performance is vital for the success of postsecondary institutions (Letizia, 2014; Hassan & Yau, 2013; Guillaume, Honeycutt, & Savage-Austin, 2013; Wheeler, 2012). The leadership style that will encourage students to enroll, increase student satisfaction, and achieve a high rate of student retention demands attention and is worth pursuing (Bogler et al., 2913; Garcia, 2015; Hassan & Yau, 2013; Padron, 2012; Yates, 2011). Servant leadership is one style of leadership that has the potential to

positively move institutions of higher learning towards achieving these goals and thus enhance their performance (Huber, 2014; Jacobs, 2011; Letizia, 2014; Padron, 2012; Reed & Swanson, 2014; Searle, 2011). Among the many leadership theories, servant leadership stands as unique, has a great potential for higher education; and is one of the deeper, profound, and most insightful theories in true and authentic leadership (Wheeler, 2012; Senge, 1995).

More research on the effect of servant leadership in higher education is needed (Huber, 2014; Jacobs, 2011; Metzcar, 2008; Nyamboli, 2014; Pardon, 2012; Setliff, 2014). Therefore, discovering how specific instructor leadership behaviors are related to online-student satisfaction may influence the understanding among university managers, instructors, and others of how to design effective leadership trainings. The purpose of these trainings would be to foster leadership qualities that can improve online-student satisfaction (Garcia, 2015; Bogler et al., 2013; Nyamboli, 2014; Watts, 2015; Yates, 2011). Therefore, servant leadership theory may function as a pillar for future leadership models in institutions of higher education (Buchen, 1998; Noland & Richards, 2015; Reed & Swanson, 2014; Wheeler, 2012). Servant leadership behavior may be taught and developed (Huber, 2014). Furthermore, the implementation of servant leadership behaviors at institutions of higher learning may help these institutions to recapture their passion and vison, and may also help in transforming these institutions and assist them in the regaining of the public trust (Fransworth, 2007; Letizia, 2014; Wheeler, 2012). This confidence is particularly needed in online distance learning.

The influence of servant leadership on the well-being of followers has been demonstrated in many empirical studies. Servant leadership had a positive effect on work climate (Black, 2010; Dixon, 2013). A positive work climate was related to organizational commitment (Pekerti & Sendjaya, 2010), which positively affected job satisfaction (Cerit, 2010; Irving, 2005; Laub, 1999; Shaw & Newton, 2014; van Dierendock & Nuijten, 2011). Organizations with satisfied employees had low employee turnover (Babakus, Yavas, & Ashill, 2011). Thus, online instructors who exhibit servant leadership characteristics may be able to create positive outcomes among the students, who are their followers (Huber, 2014). By fostering a vibrant online community of trust, togetherness, care, common purpose, and support, online instructors may be able to have more satisfied students and to elevate the level of student satisfaction with the course (Boglar et al., 2013; Crim, 2006; Garcia, 2015; Huber, 2014; Kranzow, 2013; Mark, 2013; Nayamboli, 2014; Palloff & Pratt, 2009; Paul & Fitzpatrick, 2015; Yates, 2011). The result would be a positive effect on persistence and retention (Cole et al., 2014; Croxton, 2014; Kranzow, 2013; Schreiner & Nelson, 2013). Without this information, online university administrators and instructors may not have all the information they need to maximize student satisfaction with their instructor (Joo, Lim, & Kim, 2011; Kranzow, 2013) and thus maximize student achievement (Joo, Joung, & Kim, 2013).

Criticisms of Servant Leadership

Several criticisms of the theory of servant leadership have been made (van Dierendock, 2011). Specifically, a major weakness and one of the main the criticisms within the extant literature include a lack of clear definition of servant leadership (Parris

& Peachy, 2013) with consensus across experts on this definition (Parris & Peachey, 2013; Fotch & Ponton, 2015; van Dierendonck, 2011). This difficulty stems from the paradoxical nature of servant leadership and the juxtaposing of the two words, servant and leader. As such, many find it difficult to accept how leaders can be servants and servants can be leaders (Focht & Ponton, 2015). This lack of a clear understanding of servant leadership made it difficult to have a consensus among scholars regarding a unified theoretical framework that will pave the way for more empirical research to test the servant leadership (van Dierendock, 2011). Although much has been written regarding the effect of servant leadership on organizations, because of this lack of unified theoretical framework for servant leadership, there have been few empirical research with wide, substantive, and practical applications (Fotch & Ponton, 2015; Parris & Peachey, 2013; Dean, 2014; van Dierendonck, 2011; van Dierendonck et al., 2014). Even Greenleaf (1977) himself stated "What I have to say comes from experience, my own and that of others, which bears on institutional reconstruction. It is a personal statement, and it is meant to be neither a scholarly treatise nor a how-to-do-it manual" (p. 49).

Because of the lack of a clear definition for servant leadership theory (Foch & Ponton, 2015), many scholars have stated that the theory is unrealistic, anecdotal, and unorthodox (Buford, 2012; Dean, 2014; Waterman, 2011). Scholars have also indicated that servant leadership has different meaning based on the social and cultural context (Parris and Peachey, 2013); and is idealistic and limited to individuals with a strong spiritual dimension, and contrary to human nature (Dean, 2014; Waterman, 2011). Furthermore, although many models (e.g., Barbuto & Wheeler, 2006; Laub, 1999;

Patterson, 2003; Russell & Stone, 2002; van Dierendonck & Nuijten, 2011; Winston, 2003; Wong & Page, 2003) have been based on the use of independent variables that capture the values of servant leadership behaviors, these models lack an explanation of the source of these traits (Yukl, 2010).

Online Education

Advances in technology has allowed higher educational institutions to deliver high quality education to a large number of students by removing the constraints of time and space that typically face traditional education (Allen & Seaman, 2013; Garcia, 2015; Hammad & Majad, 2011). This increase in the number of online students provides these institutions with the revenue necessary to stay viable in the face of high competition and a weak economy (Amirault, 2012; Chau, 2010; Allen & Seaman, 2014). Furthermore, online education has the potential of enhancing the quality of the students' educational experience by making the educational material more available and accessible to them, facilitating the efforts of collaborative learning among the online community, and fostering the sense of community in a virtual online learning environment (AlHamad et al., 2014; Garcia, 2015; Balthazard, Waldman, & Warren, 2009; Georgouli, Shalkidis, & Guerreiro, 2008; Kranzow, 2013; Ladyshwsky, 2013).

Since the introduction of the World Wide Web in the early 1990's, members of the academic community realized the potential of virtual online learning environment for delivering and managing their course content to their students using new Web-based tools (AlHamad et al., 2014; Dziuban, Moskal, Kramer, & Thompson, 2013; Cole, Shelley, & Swartz, 2013; Kuo, Walker, Schroder, & Belland, 2014; McGill & Klobas, 2009). For

example, some of these early tools were email and the use of basic HTML features in order to develop the course website where the instructors posted and managed the course content and other relevant material for students to access (Garcia, 2015; Gülbhahar & Madran, 2009; AlHamad et al., 2014). More recent tools such as video conferencing, voice, and text chat (June, Young, & Hyun, 2013) have also been utilized by online instructors to manage and deliver their course content.

The Internet was quickly seen as having the potential to deploy educational content to students. Many web-based Learning Management Systems (LMSs) such as WebCT, Blackboard, Prometheus, and Moodle, have been developed for use by institutions of higher education. Therefore, the rate of adoption of these LMSs and other IT tools has become popular among post-secondary institutions in the United States and around the world (Green, 2014; Lwoga, 2014). Furthermore, new web-based LMS providers such as Epsilen, Instructure, and Loudcloud, are entering the market and are gaining new campus clients (Green, 2012).

Learning Management Systems (LMS) are used by educators to support the students' learning experience and for course management (AlHamad et al., 2014; Lwoga, 2014; Rubin, Fernandes, & Avgerinou, 2013). Instructors use the LMS to post syllabi, educational materials, homework assignments, tests, email communication, synchronous and asynchronous class discussions, audio and video materials, and chat rooms (Crawford-Ferre & Wiest, 2012; Deulen, 2013; Falloon, 2011; Fardinpour, Pedram, & Burkle, 2014; Kear et al., 2012; Travis & Rutherford, 2013). Conversely, students can

benefit from LMS in that the students can perform class assignments anytime and anywhere (Amirault, 2012; Cater, Michel, & Varela 2012).

Since 2003, the first year that the Babson Survey Research Group and Sloan-Consortium (Sloan-C) published their national online learning reports, the 2013 report, *Changing Course: Ten Years of Tracking Online Education, in the United States*, has shown that the number of students enrolled in at least one online course increased by over 570,000 to a total of 6.7 million (Allan & Seaman, 2013). Furthermore, almost 70% of the institutions reported that online education was an essential element of their long-term strategy (Allan & Seaman, 2013). It is apparent that administrators of institutions of higher education have become aware that the potential of using web-based management systems in online education in terms of the success of their institutions is great enough to justify the high initial cost of these systems (Green, 2012; Amirault, 2012).

The success of the deployment of online education does not depend only on cutting edge of the LMS technology, but also on the willingness of the faculty members to use these technologies to advance student learning (Asunka, 2012). The style of leadership among faculty members affects the student satisfaction with their online education (Bogler et al., 2013; Cleveland-Innes, 2013; Dewan & Dewan, 2010; Garcia, 2015; Hassan & Yau, 2013; Huber, 2014; Kranzow, 2013; Livingston, 2011; Padron, 2012; Yates, 2011), and their self-efficacy in the use of technology (Alshare, Freeze, Lane, & Wen, 2011; Bolliger & Halupa, 2012; Oluyomi, 2010). Leaders of institutions of higher education may invest not only in IT but also in leadership training for

instructors who will be using web-based LMSs to advance e-learning, increase student satisfaction, student retention, and the mission and vision of these institutions.

The fact that instructor's interaction with the students is one of the key factors for students' satisfaction and persistence in an online course (Joo, Joung, & Kim, 2013; Kuo, Walker, Belland, & Schroder, 2013; Kuo et al., 2014; Ladyshewsky, 2013; Morrow & Ackermann, 2012; Oncy & Cakir, 2011; Rey & Buchwald, 2011; Watts, 2015) makes the communication tools within the LMS indispensable (Crawford-Ferre & Wiest, 2012; Deulen, 2013; Falloon, 2011; Kear et al., 2012; Travis & Rutherford, 2013). Faculty members who utilized emails, discussion groups, videos, within their courses had highly satisfied students (Joo et al., 2013; Ladyshewsky, 2013). Conversely, faculty members who had infrequent contacts with their students had high attrition rates (Croxton, 2014). For example, in a correlational survey study conducted by Chen and Chih (2012), the researchers discovered that social relationships as a motivator strongly predicted student satisfaction (N = 64) with the instructor (β =.378, p<.01). In another qualitative study, Rhode (2009) interviewed 10 online adult students. These adult learners rated the interaction with the instructor and quality of the course material as the most important factors for their overall satisfaction. Conversely, in a quantitative research study, Espasa and Menses (2010) surveyed 186 online students to measure student satisfaction and noted a statistically significant the instructor feedback, student achievement, and satisfaction with online learning. More recently, Kuo, Walker, Schroder, and Belland (2014) conducted a quantitative study using an online survey, where data were collected from 221 students enrolled in graduate and undergraduate programs. Using a hierarchical

linear modeling (HLM) to test the regression modal, the researchers found that interaction between students and instructors, and the interaction between students and the course content were significant predictors of satisfaction among students (Kuo et al., 2014).

While the interaction of the instructor with the students in an online course is a good predictor for student persistence and satisfaction with online learning, the lack of such student–instructor interactivity may lead to student dissatisfaction with online learning (Croxton, 2014; Kuo et al., 2014). For example, Offir, Belazel, and Barth (2007) surveyed 77 online college students regarding student-instructor interaction. The researchers noted that 47% (n = 51) of these university students indicated dissatisfaction because of the lack of personal contact with their instructor. Similarly, Walker and Kelly (2007) conducted a quantitative study about the students' online experience. The researchers noted that students were highly dissatisfied because of the lack of quality feedback from their instructors. Thus, the availability of a state-of-the-art technology for course delivery is not sufficient for student satisfaction (Palloff & Pratt, 2007); the caring human touch of the instructors (Reed & Swanson, 2014; van de Bunt-Kokhuis & Sultan, 2012) who utilize this technology to deliver their pedagogy is a critical component of the educational system.

According to Greenleaf (1977, p. 27) the 'best test' of whether servant leadership is taking place is that the followers of servant leaders will become "healthier, wiser, freer, more autonomous and more likely to become servants themselves." Therefore, future research on servant leadership should focus on the followers (Avolio et al., 2009; van

Dierendonck & Nuijten, 2011). This follower-centric approach may enable researchers to determine the well-being of the followers of servant leaders and to evaluate how this well-being affects the performance of both leaders and followers.

Criticisms of Online Education and Web-Based Learning Management System

Despite the growth of online education in the United States that has transpired over the last 10 years, online education has its critiques. One of the main critiques to online education is that students, who are not self-starters, have low motivation, and exhibit poor study habits may not succeed in online courses (Udorache, Iordache & Iordache, 2012). In addition, when using LMS, students may feel socially isolated from their teachers and other students especially if the teacher is not actively engaged with the students (Cater, Michel, Varela 2012; Smith & Mitry, 2004). Another critique of online education stems from the lack of quality in this delivery method, treating education a commodity or an economic product, and treating the students as customers (Chau, 2010). Finally, although utilizing a LMS to deliver online classes to students does not require physical building on campus, the initial investment in LMS is costly (Rubin, Fernandes, & Avgerinou, 2013).

Avolio et al. (2009) stated that the future research of servant leadership should focus on the followers because one of the major tenets of servant leadership was that those who follow servant leaders are likely to become "healthier, wiser, freer, more autonomous, and more likely to become servants themselves" (Greenleaf, 1977, p. 27). This kind of follower-centric approach may enable researchers to determine the well-

being of those who follow servant leaders and how this well-being affects the performance of both leaders and followers.

Student Satisfaction with Online Education

Student satisfaction is the student's perception of the quality of his or her educational experience (Allen, Omori, Burrell, Mabry, & Timmerman, 2013). Students are satisfied when the performance of the educational institution meets or exceeds the expectations held by the students (Croxton, 2014; Kuo et al., 2014; Mark, 2013; Watts, 2015). Satisfied students are an essential ingredient to the viability of any institution of higher learning because of the significance of student satisfaction to student retention (Croxton, 2014; Cole et al., 2014; Ladshewsky, 2013; Lorenzo, 2012; Paul & Fitzpatrick, 2015). Therefore, policy makers in higher education should pay close attention to what ensures student satisfaction (Mark, 2013). Indeed, many educationists have proposed that student satisfaction should be the main aim of any successful educational systems (Allen, Seaman, & Consortium, 2011; Nyamboli, 2014).

This focus on student satisfaction does not mean that instructors must pander to students. On the contrary, such a focus creates a basis for ensuring that instruction, assessment, and attention to student needs are all maintained at a high level of quality (Mark, 2013). Within this framework, leaders of institutions of higher learning seek to improve student retention by ensuring that students are satisfied with their educational experiences (Cole et al., 2014; Gill et al., 2010).

Many factors affect student satisfaction with online education, and these factors vary across disciplines (Hussain, 2013; Joo et al., 2013; Ladyshewsky, 2013; Morrow &

Ackermann, 2012; Oncy & Cakir, 2011; Paul & Fitzpatrick, 2015; Rey & Buchwald, 2011; Simpson, 2013; Watts, 2015). Instructor presence has a significant effect on student satisfaction and learning persistence (Joo et al., 2013; Ladyshwsky, 2013). Another factor that leads to higher student satisfaction in online pedagogy is social presence (Abdous & Yen, 2010). When instructors provide timely feedback, students are more satisfied with their online learning experience (Croxton, 2014; Kuo, 2014; Joo et al., 2013; Lee, 2010). Other predictors of student satisfaction in online courses include support services, instructor attitude to online learning, interactive instructional design, course quality, and ease of usefulness of the course material (Lee, 2010; Moore & Kearsley, 2012; Paul & Fitzpatrick, 2015; Sun et al., 2008).

As discussed above, factors related to student satisfaction in online education include the learner, the instructor, the course, the technology, the design, and the environment (Croxton, 2014; Padron, 2012; Paul & Fitzpatrick, 2015; Sun et al., 2008; Watts, 2015). For example, student satisfaction was investigated by means of a questionnaire with a 7-point Likert-type scale developed from a series of in-depth interviews with five experienced online learners. The reliability of the questionnaire was established through a pilot test with 36 students of business administration who had experience with online education. The results of the study showed that learners computer anxiety, teacher attitude, course flexibility, course quality, perceived usefulness by the learners, learners perceived ease of use, and diversity in the methods of assessment were essential factors related to learner satisfaction with online education (Sun et al., 2008).

One of the main factors associated with student satisfaction is the multifaceted role that instructors play in an online learning environment (Boglar et al., 2013; Hassan & Yau, 2013; Huber, 2014; Jacobs, 2011; Joo et al., 2013; Kuo et al., 2014; Ladyshwsky, 2013; Morrow & Ackermann, 2012; Nayamboli, 2014; van de Bunt-Kokhuis & Sultan, 2012; Yates, 2011). However, little is known about the role of the instructor's leadership style in this relationship (Boglar et al., 2013; Garcia, 2015; Huber, 2014; Nyamboli, 2014). The current study was designed to shed light on this new research area with an examination of how servant leadership on the part of online instructors may be related to student satisfaction with the instructor.

Retaining students in online courses and sustaining a high level of student satisfaction is difficult (Cole et al., 2014; Croxton, 2014). This difficulty is the result of the sense of isolation that students experience when studying online (Rovai & Downey, 2010; van de bunt-Kokhuis & Sultan, 2013). Online students experience an absence of social presence, a sense of isolation, and a lack of interaction with the teacher and other learners (Rovai & Downey, 2010; Reed & Swanson, 2014; van de bunt-Kokhuis & Sultan, 2013). For this reason, institutions of higher education pay close attention to the level of student satisfaction with the online learning experience by regularly measuring student satisfaction in course and program evaluations (Kuo, 2010; Nyamboli, 2014). Higher levels of satisfaction among online students are associated with increased persistence in course programs, leading to improved student achievement and retention (Cole et al., 2014; Kranzow, 2013; Lorenzo, 2012; Noland & Richards, 2015; Tsai & Lin, 2012; Yates, 2011; Young, Sunyoung, & Eun Kyung, 2013). The leadership style of the

instructor has the potential to enhance the students' educational satisfaction and thus improve student retention (Gill et al., 2010; Noland & Richards, 2015).

A survey was conducted at a private university in the southeastern United States with 3,000 students (Yates, 2011) to study the relationship between student perceptions of the transformational leadership style of online instructors and student satisfaction. Participants included 296 undergraduate students and 159 graduate students enrolled in online courses. Significant correlations were found between satisfaction with the instructor and the following five components of the transformational leadership model:

(a) idealized influence attribute, (b) idealized influence behavior, (c) inspirational motivation, (d) intellectual stimulation, and (e) individualized consideration. The study demonstrated a relationship between the leadership style of the instructor and student satisfaction and persistence in online courses (Yates, 2011).

Similarly, Boglar et al. (2013) examined the relationship between transformational and passive leadership styles of university faculty and student satisfaction and learning outcomes. Approximately 1,270 online students completed a web-based multifactor leadership questionnaire. The findings showed a positive correlation between the students' perception of the transformational leadership style of the online instructors and student satisfaction (Boglar et al., 2013). The implication of the study was that the leadership style of university instructors may influence students' learning, satisfaction, and performance (Boglar et al., 2013; Jacobs, 2011; Livingston, 2012; Nayamboli, 2014; Padron, 2012; Yates, 2011). Gil et al. (2010) also surveyed student (N = 204 Asian students) to examine the relationship of transformational

leadership style and student satisfaction and stress. The students were enrolled in business programs at colleges and universities in British Columbia, Canada. The researchers found that when the instructors exhibited transformational leadership styles, student satisfaction improved, and stress levels were reduced.

Servant leadership is another style of leadership with the potential to improve student satisfaction and retention for online learning in higher education (Huber, 2014; van de Bunt-Kokhuis & Sultan, 2012). Servant leadership is characterized by the qualities of "listening, forgiveness, empathy, humility, care for people and organization, healing of relationships, awareness, persuasion, courage, giving feedback, conceptualization, foresight, stewardship, authenticity, commitment to growth and empowerment of others, and building community" (van de Bunt-Kokhuis & Sultan, 2012, p. 2). These qualities have made servant leadership one of the top five leadership theories in the current leadership literature and has gained popularity worldwide (Nyamboli, 2014).

Huber (2014) explored how to improve the quality of online and identified a positive correlation d between servant leadership and student satisfaction. The research was conducted at a private university setting in the northwestern United States. In addition, the influence of servant leadership principles on online classrooms was explored by means of interviews, course shadowing, analysis of discussion boards, and examinations of course documents. Three instructors who had taught graduate-level online classes on servant leadership were invited to participate in the study. The results showed that when online instructors applied servant leadership principles, students

demonstrated increased satisfaction and success. Huber (2014) concluded that the application of all the characteristics of servant leadership (Greenleaf, 1977; Spears, 1995) would increase student satisfaction in any online postsecondary setting. However, this conclusion has not been demonstrated with quantitative data derived from the students themselves. Furthermore, it is unknown which characteristics of servant leadership exhibited by online instructors have the strongest correlation with student satisfaction in an online environment. Thus, the aim of this study was to empirically discover, from the perspective of online students, which of Greenleaf's characteristics of servant leadership were the most strongly related to student satisfaction with online instructors.

Summary

As has been shown throughout this literature review, the current milieu of servant leadership theory supports the current study on the relationship between servant leadership and student satisfaction in an online educational setting. There has been much research regarding the factors related to satisfaction among online students (Bogler, et al, 2013; Huber, 2014; Livingston, 2012; Nyamboli, 2014; Padron, 2012; van de Bunt-Kokhius & Sultan, 2012; Yates, 2011). However, the research on the role of online instructors in relationship to student satisfaction, particularly in terms of the leadership style of the instructor, is much more limited. Servant leadership style has emerged as one possible style that has the potential to improve student satisfaction with online education (Huber, 2014; van de Bunt-Kokhius & Sultan, 2012).

Most of the research on servant leadership in higher education has focused on measuring the organizational level of servant leadership rather than on examining servant leadership characteristics of individual instructors (Jacobs, 2011; Padron, 2012). This gap in the literature is problematic because the organizational level and the individual level of servant leadership are inextricably intertwined, and both must be considered (Covey, 1998; Irving, 2005). No empirical studies were located, in which the relationship between the individual servant leadership styles of online instructors and online student satisfaction with the instructor was evaluated. However, the evidence from the research on servant leadership in the organizational level suggests that the same positive relationship may be found at the individual level (Huber, 2014; Jacobs, 2011; Steele, 2010). The purpose of the current quantitative, correlational study was to evaluate the relationship between student perceptions of the instructor's servant leadership style and student satisfaction with the online instructor. The focus of the study was on the students' perception of the servant leadership characteristics of individual instructors rather than on the organizational level of servant leadership. As such, the results of these evaluations contributed to the existing research on servant leadership in higher education.

Chapter 3: Research Method

Among recent leadership research that focused on the leader-follower dynamic, servant leadership is considered one of the most innovative and influential theories (Liden et al., 2015; Stewart, 2012). Leaders in many organizations such as churches, corporations, and educational institutions have adopted servant leadership as an effective and authentic leadership style that fosters growth among the followers by creating a positive and productive work environment (Black, 2010; Jones, 2012; Van Winkle, Allen, De Vore, & Winston, 2014). Similarly, many scholars believe that applying these concepts in the classroom setting, particularly in an online environment, would have the potential to affect both the role of online instructors and higher education andragogy (Crippen, 2010; Johnson & Vishwanath, 2011; Huber, 2014; Huber & Carter, 2014; Nyamboli, 2014; Reed & Swanson, 2014; van de Bunt-Kokhius & Sultan, 2012).

While the literature showed that most of the research on servant leadership has been conducted in organizational settings, the concept of servant leadership and student satisfaction in higher educational settings has been identified as an area that needs to be investigated (Jacobs, 2011; Metzcar, 2008; Nyamboli, 2014; Padron, 2012), particularly in an online environment (Huber, 2014; Nyamboli, 2014; Reed & Swanson, 2014). Servant leadership style has emerged as one possible style that has the potential to improve student satisfaction with online education (Huber, 2014; van de Bunt-Kokhius & Sultan, 2012).

Considering servant leadership at the individual level offers researchers an opportunity to examine key individual characteristics of servant leadership (Covey, 1998;

Noland & Richards, 2015). Thus, the problem that existed was that it remains unclear how individual instructor leadership behavior variables are related to online-student satisfaction (Bogler et al., 2013; Nyamboli, 2014; Yates, 2011). Therefore, the purpose of this quantitative correlational study was to evaluate the relationship between students' perception of their instructor's servant leadership style and the student's satisfaction with the online-instructor. Until there is a better understanding of the relationship between individual instructor leadership behavior variables, college managers, instructors, and others will not be able to design effective trainings that will foster leadership qualities that can improve online-student satisfaction (Huber, 2014; Huber & Carter, 2014; Nyamboli, 2014; Yates, 2011). Furthermore, without this information, online college administrators and instructors may lack information they need to maximize student satisfaction with their instructor (Kranzow, 2013) and thus to maximize student achievement (Joo et al., 2011).

To evaluate the extent to which altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship in an instructor predict student satisfaction, the following research questions were presented.

- Q1. What is the relationship, if any, between online student perceptions of the instructors' altruistic calling leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States?
- **Q2**. What is the relationship, if any, between online student perceptions of the instructors' emotional healing leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States?

- **Q3.** What is the relationship, if any, between online student perceptions of the instructors' wisdom leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States?
- **Q4.** What is the relationship, if any, between online student perceptions of the instructors' persuasive mapping leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States?
- **Q5.** What is the relationship, if any, between online student perceptions of the instructors' organizational stewardship leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States?
- **Q6.** Which combination of online student perceptions of the instructors' servant leadership behavior characteristics scores better predict student satisfaction with the instructor than any single leadership behavior alone, at a community college setting in the south-central United States?

The answers to the research questions have enhanced the understanding of the role of academic leadership in higher education, specifically servant leadership, and its relationship to online-student satisfaction with the online-instructor at community colleges and universities in the United States.

To answer the research questions, the following hypotheses were tested and discussed in this study:

H10. There is no correlation between online-student perceptions of the online-instructor's altruistic calling leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.

- H1a. There is a correlation between online-student perceptions of the online-instructor's altruistic calling leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.
- **H2**₀. There is no correlation between online-student perceptions of the online-instructor emotional healing leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.
- **H2**_a. There is correlation between online-student perceptions of the online-instructor's emotional healing leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.
- **H3**₀. There is no correlation between-online student perceptions of the online-instructor wisdom leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.
- H3_a. There is a correlation between online-student perceptions of the online-instructor wisdom leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.
- **H4**₀. There is no correlation between online-student perceptions of the online-instructor persuasive mapping leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.
- **H4**_a. There is a correlation between online-student perceptions of the online-instructor persuasive mapping leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.

H5₀. There is no correlation between online-student perceptions of the online-instructor organizational stewardship leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.

H5_a. There is a correlation between online-student perceptions of the online-instructor organizational stewardship leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.

H60. Two or more online-student perceptions of the online-instructor servant leadership behavior characteristics do not better predict student satisfaction with the instructor than any single leadership behavior alone, at a community college setting in the south-central United States.

H6a. Two or more online-student perceptions of the online-instructor servant leadership behavior characteristics better predict student satisfaction with the instructor than any single leadership behavior alone, at a community college setting in the southcentral United States

The aim of this chapter is to present the research method for this research study. After a brief introduction and a presentation of the research questions and hypotheses, a discussion of the research method and design is presented with an explanation to why quantitative method and correlational design is the best fit for this research. Furthermore, this chapter includes the population chosen for this study; the materials and instruments used; an operational definition of the variables; and the method that will be used to collect, process, and analyze the research data. The chapter concludes with a discussion of the study assumptions, limitations, delimitations, ethical assurances, and a brief

summary of the key points presented in this chapter. Because a positive correlation was found between servant leadership and online student satisfaction, servant leadership should be studied further so that in the future, the necessary training for online instructors may be provided as a means to increase student satisfaction with online learning.

Research Method and Design

Research methodology. A quantitative methodology is used to examine relationships among variables (Creswell, 2009; Gall, Gall, & Borg, 2007). In quantitative research, variables are measured using instruments that produce numerical data for statistical analyses (Borrego, Douglas, & Amelink, 2009). Thus, quantitative methodology was determined to be the best fit for this study because the purpose was to evaluate the precise relationship between students' perception of their instructor's servant leadership behavior and the student's satisfaction with the online instructor.

To achieve this purpose, the SLQ (Barbuto & Wheeler, 2006) and the SET (Tsai & Lin, 2012) surveys were administered. The SLQ provided a quantification of the five facets of perceived servant leadership, with higher scores for each facet indicating a stronger presence of the facet of servant leadership in the individual (Barbuto & Wheeler, 2006). Similarly, the SET provided a quantification of the student level of satisfaction with the instructor, with higher scores indicating a higher level of satisfaction (Tsai & Lin, 2012). The numerical data were necessary to examine the relationship between servant leadership and student satisfaction.

Conversely, a qualitative methodology would have required direct observation and semi structured interviews with small groups of participants in a real-world situation

to understand the how and why of social transactions between people and events (Oluyomi, 2010). As such, qualitative method focuses on a small number of people and their subjective views rather than a larger sample that can be chosen to test a certain number of hypotheses, as was the case in the current study. In addition, researchers use qualitative methods when they do not yet know how to quantify the variables (Yates, 2011). Finally, the qualitative approach was not a good fit for this study because qualitative research lacks clear guidelines or evaluation criteria for validation (Venkatesh, Brown, & Bala, 2013). A mixed-method approach was not used for this study because the selection of a mixed-method approach should be driven mainly by the research questions, objectives, and context (Teddlie & Tashakkori, 2009). Furthermore, a mixed method approach to the current study would have required more effort, time, and money, which would have been prohibitive for the current research (van Griensven, Moore, & Hall, 2014).

Design. A correlational design was determined to be the best fit for the current study. A correlational design led to a better understanding of the relationships between the predictor variables and criterion variable. Furthermore, the correlational design was appropriate for the current study because the relationship between the variables was examined without experimental manipulation. Instead, responses were collected with a survey instrument at a moment in time from a convenient sample in order to conduct correlational analysis (Jackson, 2016).

Population

In the United States, during the fall of 2013, there were 2,659,203 students enrolled exclusively in online classes (Poulin & Straut, 2015). According to the 2013 College Explorer report (Bolkan, 2013), 46% of U.S. students have taken at least one online course. The population for the current study consisted of adult online students 18 and older who were enrolled in online classes at community colleges in the United States. This targeted population included all genders, ages, races, ethnicities, and levels of experience in online learning.

Sample

The sampling frame for the study consisted of online students at a major community college in the southcentral United States. The college has been recognized as an Aspen Prize Top 10 Community College each of the three years the prize has been awarded. The college is a regionally accredited community college with an enrollment of nearly 6,166 students during the fall 2015 semester, of which, according to Connie Heflin, Dean of Online Learning at the targeted college, 1,028 students were enrolled in only one online course (personal communication, December 15, 2015). The community college site was selected for convenience. All students in the sampling frame were 18 years of age or older and were enrolled in one online courses at the selected community college during the fall 2015 semester. Participants had little or no face-to-face contact with their instructors.

From the overall sampling frame of 1,028 students, 224, or 21.8%, agreed to participate in the study. This percentage was consistent with the anticipated response rate

of approximately 20% (Bech & Kristensen, 2009; Chang & Krosnick, 2010; Dillman et al., 2009; Messer & Dillman, 2011; Petrovčič, Petrič, & Lozar Manfreda, 2016).

Although 224 students attempted the survey, only 155 students completed all questions needed for analysis.

According to the results of an a priori power analysis (Faul et al., 2009), the required sample size for bivariate correlations was 84, assuming a two-tail test, a medium effect size of 0.3, an alpha significance level of 0.05, and a power of 80%. With a sample size of 155, the achieved power of the bivariate correlation was 96.9%, showing a strong statistical power for the results. To achieve a power of 80%, the required sample size for a multiple linear regression with five predictors was 95, assuming a medium effect size of 0.15, an alpha significance level of 0.05, and a power of 80%. With a sample size of 155, the achieved power of the multiple linear regressions was 97.2%, again showing a strong statistical power for the results.

Materials/Instruments

The survey questions were administered using the SLQ (Barbuto & Wheeler, 2006) and the SET (Tsai & Lin, 2012). Following is a discussion of each of these instruments.

Servant leadership questionnaire (SLQ). The SLQ is a 23-item inventory (See Appendix B) that assesses the extent to which leaders display servant leadership qualities as conceptualized by Greenleaf (1970) and Spears (1995). Two versions of the questionnaire exist: the self-report or leader version, and the rater or follower version. The rater version of the SLQ instrument was used in this survey, measuring five

component variables of servant leadership: altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship. All five variables are measured on a Likert-type measurement scale, with values ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). These five factors had the following Cronbach alphas: (a) altruistic calling, $\alpha = .82$; (b) emotional healing, $\alpha = .91$; (c) wisdom, $\alpha = .92$; (d) persuasive mapping, $\alpha = .87$; and (e) organizational stewardship, $\alpha = .89$.

The structure of the subscales was validated through confirmatory factor analysis, indicating a good fit between the measurement model and the data (Barbuto & Wheeler, 2006). The overall model fit was shown by the chi square, χ^2 (220) = 1,410.69, p < .001, for the self-report and rater-report versions of the SLQ (Barbuto & Wheeler, 2006). The SLQ provided a way to conduct empirical research on servant leadership behavior with a proven validity and reliability (Guillaume, 2012).

Student evaluation of teaching (SET). The SET (Tsai & Lin, 2012) is a fiveitem self-report inventory (See Appendix D). The SET was used to measure student satisfaction with online instructors. These items are the global assessment of student satisfaction resulting from the course and instructor. The scores were measured on a Likert-type measurement scale, with values ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The SET had a Cronbach's alpha of .89 (Tsai & Lin, 2012).

Operational Definition of Variables

In this study, the relationship between the predictor variables and the criterion variable of student satisfaction was investigated. These variables are now introduced. First, the predictor variables (the five facets of perceived servant leadership behavior,

including altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship) are presented, followed by the criterion variable of student satisfaction.

Altruistic calling. Altruistic calling was measured on a Likert-type measurement scale, with values ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The scale measurement was interval. The score was derived by calculating the average of Questions 1, 3, 35, and 46 from the SLQ. Lower scores indicated a student's perception that the instructor had less altruistic calling leadership behavior. Higher scores indicated a student's perception that the instructor had more altruistic calling leadership behavior.

Emotional healing. Emotional healing was measured on a Likert-type measurement scale, with values ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The scale measurement was interval. The score was derived by calculating the average of Questions 5, 16, 27, and 38 from the SLQ. Lower scores indicated a student's perception that the instructor had less emotional healing leadership behavior. Higher scores indicated a student's perception that the instructor had more emotional healing leadership behavior.

Wisdom. Wisdom was measured on a Likert-type measurement scale, with values ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The scale measurement was interval. The score was derived by calculating the average of Questions 6, 9, 17, 28, and 50 from the SLQ. Lower scores indicated a student's perception that the instructor had less wisdom leadership behavior. Higher scores indicated a student's perception that the instructor had more wisdom leadership behavior

Persuasive mapping. Persuasive mapping was measured on a Likert-type measurement scale, with values ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The scale measurement was interval. The score was derived by calculating the average of Questions 7, 8, 18, 29, and 40 from the SLQ. Lower scores indicated a student's perception that the instructor had less persuasive mapping leadership behavior. Higher scores indicated a student's perception that the instructor had more persuasive mapping leadership behavior.

Organizational stewardship. Organizational stewardship was measured on a Likert-type measurement scale, with values ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The scale measurement was interval. The score was derived by calculating the average of Questions 21, 34, 43, 45, and 54 from the SLQ. Lower scores indicated a student's perception that the instructor had less organizational stewardship leadership behavior. Higher scores indicated a student's perception that the instructor had more organizational stewardship leadership behavior.

Student satisfaction with the instructor. Student satisfaction with the instructor was measured on a Likert-type measurement scale, with values ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The scale measurement was interval. The score was derived by calculating the average of Questions 1 through 5 from the SET survey. Lower scores indicated less satisfaction with the instructor, whereas higher scores indicated greater satisfaction with the instructor.

Data Collection, Processing, and Analysis

Data collection. Data collection commenced after approval was received from the Northcentral University Institutional Review Board (IRB) to conduct the study. The participants in the study consisted of online adult students enrolled at a community college setting in the south-central United States. First, a list for the students' emails was requested from the office of the Dean of Online Learning at the targeted college. Once the list was obtained, approximately 1,028 participants were contacted through e-mail with an invitation to participate in the study (see Appendix G). The email contained the reasons for conducting the study, contact information, and an online link to the survey. In addition, in this email message participants were informed via the letter of informed consent that participation was voluntary and that participating or not participating in the study involved no penalty or risks. The message to the participants indicated that the collected research data would not include any personal information or other way to identify respondents. Students were provided a 3-week period to respond to the invitation to participate in the study. To encourage more student response to complete the survey, students were given the opportunity to win one of the five Amazon gift cards, with a value of \$50.00 each; however, any identifiable data collected for this purpose were kept separate from the survey results and were destroyed after the drawing was completed (See Appendix I for more details).

Among those invited to participate in the study, 155 provided informed consent and completed all survey questions necessary to compute the independent and dependent variables. Study participants who declined to answer one or more survey questions

needed to calculate a given independent or dependent variable were omitted from the analysis. There were two reasons for this decision. First, the authors of the instruments did not provide instructions for missing value replacement. Therefore, a process of missing value replacement may have invalidated the results. Second, missing value replacement with mean substitution should be used only if 10% or fewer of the components of a given scale are missing (Baraldi & Enders, 2010; Karanja, Zaveri, & Ahmed, 2013). Because all scale scores used in this study included only four or five items, even one missing item would have exceeded the number of permissible items omitted.

The link provided in the email message took the students to the online survey hosted by SurveMonkey, an online survey-hosting site. This link contained a combined survey of both the SLQ and the SET. Survey Monkey (n.d.) facilitated the data collection process. SurveyMonkey is online survey software that allows users to create highly individualized survey questionnaires (Roberts, 2010).

Two follow-up email reminders were sent to participants to account for students who may have missed the earlier email invitations. No data were accepted after the three weeks had passed. Although 224 surveys were completed, only 155 contained all the necessary data needed for the study. The data were downloaded from the SurveyMonkey website directly into SPSS software for analysis. All data were saved in an encrypted file and stored on a secure password-protected personal computer. After 7 years, all data will be erased permanently from my personal computer.

Data analysis. Prior to the data collection stage, the plan was to examine the relationship between the predictor variables (altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship) and the criterion variable (student satisfaction) with Pearson's correlation coefficients and a multiple linear regression. However, the student satisfaction score was not normally distributed, as demonstrated by an inspection of the histogram for the variable. Therefore, Pearson's correlation coefficients were inappropriate for testing Hypotheses 1 through 5. Instead, Spearman's rho correlation coefficients were computed, because Spearman's rho does not require normal distributions (Jackson, 2016). The only requirement for Spearman's rho is that the relationship between the two variables is monotonic, or linear, rather than curvilinear (Bishara & Hittner, 2012; Hill & Lewicki, 2007). This assumption was confirmed by inspecting scatterplots of all bivariate relationships being tested.

Calculations were performed using SPSS. All analyses were two-tailed, with an alpha significance level of .05.

Multiple linear regression was used to evaluate Research Question 6: Which combination of online student perceptions of the instructors' servant leadership behavior scores better predict student satisfaction with the instructor than any single leadership behavior alone, at a community college setting in the south-central United States?

Multiple linear regression is used when the criterion variable is measured on an interval or ratio scale and there are two or more predictor variables (Nimon & Oswald, 2013).

Stepwise multiple linear regression was used as a way to introduce the predictor variables one at a time into the regression equation to determine the change in the multiple

correlation associated with each variable (Montgomery, Peck, & Vining, 2012). As long as the additional variables contributed statistically to the regression equation, this process continues; however, when no more statistically meaningful contribution was added to the regression equation, the analysis stops (Dallal, 2012; Jaccard & Daniloski, 2012).

The criterion variable in the regression model was the student satisfaction with the instructor score. The predictor variables were the five servant leadership behavior scores: (a) altruistic calling, (b) emotional healing, (c) wisdom, (d) persuasive mapping, and (e) organizational stewardship. All five independent variables were entered into the regression model. A report of the model equation was presented, and the statistically significant regression coefficients were interpreted along with the R^2 for the final model.

Assumptions

Several assumptions were made in conducting this study. It was assumed that the sampling frame chosen for this study accurately represented the targeted population. It was assumed that members of the sampling frame would respond to the invitation to participate in this study. To this end, every effort was made to elicit these responses by email. It was assumed that the participants would be able to interpret and respond to the survey questions accurately. To ensure this accuracy, all communications with the participant was written at the eighth grade level using Flesch-Kincaid Grade Level measurement scale (Williamson & Martin, 2010). It was assumed that the participants in the study would take the time to provide honest and serious responses to their understanding of their instructors' leadership. To ensure truthfulness, the participants were informed that their responses were classified as anonymous. It was assumed that

the survey instrument would measure servant leadership attributes of the online instructor accurately and that the data collected from this instrument was accurately collected and interpreted. In addition, it was assumed that the data would have a normal distribution.

A final assumption was that the estimated time for completing the survey was approximately 15 minutes.

Limitations. There were several limitations in this study. This study was limited to the adult online students at a community college setting in the south central United States. Despite the limited scope of this research, it was assumed that this study would provide an initial indication on whether servant leadership style of the instructor was correlated to online student satisfaction. Thus, this study needs to be expanded in its scope to confirm the findings of this study to other community colleges and to private institutions.

Only adult online students enrolled in one online class at the targeted institution participated in this study. This group may not represent the views of all the online students. The sample was a convenience sample, which may have introduced a sampling bias or an institution bias. In addition, the time for responding to the survey was limited to only three weeks. This time frame may have created some restriction in that some students may not have been able to respond within this allotted window of time. Another limitation of this study was that online students who responded to the rater version of the SLQ survey questions may have been biased or may have misrepresented the truth on the survey. It is possible that students rated their instructors higher or lower than the instructors would have rated themselves if these instructors had been given the self-report

version of the SLQ to evaluate their servant leadership style. The instruments used for the study did not measure reality as such, but the perception of reality as reported by each participant. A final limitation for this study was that data collection through survey methods do not provide an in-depth and detailed information as a qualitative study approach would have. In an in-depth interview in a relaxed conversational atmosphere, people may offer greater insights into the research questions than would be possible with a survey.

Delimitations

This research study was limited in its scope to adult online students at a community college setting in the south central United States. As such, the findings from this research study were limited to the study site and its participants. This study was delimited to include only the use of the SLQ (Barbuto & Wheeler, 2006) and the SET (Tsai & Lin, 2012) to gather data.

Ethical Assurances

Researchers must adhere to general principles regarding the ethical guidelines that will govern their research. In the current research the participants' rights, researcher responsibility, and beneficence was observed ("Ethical Principles of Psychologists", 2010). To ensure that the participants' rights were secured, I obtained formal permission from the IRBs of Northcentral University and the community college where the data was collected. Once both IRB approvals were received, the participants were invited to participate in the study through the institutional email system. This email contained information about the purpose of the study, the importance of the study, a hyperlink to

the research survey, and the researcher contact information. Furthermore, in this email, the participants were informed that participation in this study was voluntary and that any participant can opt-out at any time. Likewise, the participants were assured that all the information received from them, if they wish to volunteer for the study, will be confidential. To this end, all the data collected for this research were stored in an encrypted file and stored securely on a password-protected personal computer until the statistical data analysis was completed. In order to encourage students' participation in the study, students were offered the opportunity to enter for a drawing of five gift cards, however, any information provided for this purpose was separated from the data collected for the study and was deleted after the completion of the gift cards drawing. Finally, those who volunteer for this study did not face any risks or harm, other than what normal life may bring, at any time during the research process.

As for the principle of beneficence, the outcome of this study may benefit students, instructors, and higher educational institutions. Because positive correlation was found between servant leadership and student satisfaction, then university and college administrators are encouraged to provide training in servant leadership principles for online instructors. Researchers have suggested that there was a positive relationship between servant leadership behaviors and student satisfaction in a brick and mortar face to face classroom setting (Jacobs, 2011; Nyamboli, 2014; Setliff, 2014); however, until this research findings, it was unknown if this positive and significant relationship could be replicated in an online setting. Satisfied students are more apt to persist and complete their degree programs (Hart, 2012; Joo et al., 2013; Schreiner & Nelson, 2013).

Summary

Most of the research on servant leadership in higher education has focused on measuring the organizational level of servant leadership rather than examining servant leadership characteristics within individual instructors (Jacobs, 2011; Nyamboli, 2014; Padron, 2012). This is problematic as the organizational level and the individual level of servant leadership are inextricably intertwined and both must be considered (Irving, 2005; Covey 1998). A systematic review of the literature suggested that currently there are no empirical studies that evaluate the relationship between the individual servant leadership behaviors of online instructors and online student satisfaction with the instructor. The purpose of this quantitative correlational study was to evaluate the relationship between students' perception of their instructor's servant leadership style and the student's satisfaction with the online-instructor. The results of these evaluations have added to the existing servant leadership research in higher education because the focus was on examining online students' perception of the servant leadership characteristics of individual instructors rather than measuring the organizational level of servant leadership.

Chapter 4: Findings

The purpose of this quantitative, correlational study was to evaluate the relationship between students' perception of their instructor's servant leadership style and the students' satisfaction with the online-instructor. A review of the extant literature revealed that there has been much research regarding the factors related to satisfaction among online students (Bogler, et al, 2013; Huber, 2014; Livingston, 2012; Nyamboli, 2014; Padron, 2012; van de Bunt-Kokhius & Sultan, 2012; Yates, 2011). However, the research on the role of online instructors in relationship to online student satisfaction, particularly in terms of the leadership style of the instructor, is much more limited. Servant leadership style has emerged as one possible style that has the potential to improve student satisfaction with online education (Huber, 2014; Nyamboli, 2014; Reed & Swanson, 2014; van de Bunt-Kokhius & Sultan, 2012). An examination of servant leadership at the individual level will provide for an opportunity to consider key individual characteristics of servant leadership (Covey, 1998; Noland & Richards, 2015). The sampling frame for the study consisted of online students at a community college in the southcentral United States. A combined survey of the SLQ and the SET was sent to 1,028 students who have enrolled in only one online course during the fall 2015 semester at the selected college. There were 155 participants who completed all the questions needed for data analysis.

In this chapter, the results of the study are presented. First, the descriptive statistics are presented, followed by a discussion of the statistical assumptions of the analyses. Then, each research question is addressed. The research findings are then

evaluated in light of previous research. Finally, a brief summary of this chapter is provided.

Results

Among the 224 respondents to the survey, one (0.45%) declined to provide informed consent and was therefore omitted from the study. Among the remaining 223 respondents, 155 (69.5%) answered all survey questions needed to compute the independent and dependent variables. Fisher's Exact Tests were performed to determine if the distributions of academic class, course requirements, ethnicity, age, or gender were different between those with and without complete data for the independent and dependent variables (Warner, 2013). None of the Fisher's exact tests were statistically significant. There was no evidence to suggest a difference in academic class, course requirements, ethnicity, age, or gender between those who did and those who did not answer all survey questions required to evaluate the independent and dependent variables.

All participants were enrolled in a single online course. The majority of the sample consisted of freshmen and sophomores. Two thirds of the participants were female, and 81.9% were Caucasian. Almost two thirds of the participants were between the ages of 18 and 29. Table 3 shows the demographic distribution of the participants.

Table 3

Demographic Distributions of Participants

Characteristic	N	Percent
Gender		
Male	50	32.3
Female	104	67.1
Missing	1	0.6
Age at time of survey		
18-29	100	64.5
30-44	37	23.9
45-59	17	11
60 or older	1	0.6
Ethnicity		
Caucasian	127	81.9
African-American	12	7.7
Asian	1	0.6
Hispanic	7	4.5
Other	7	4.5
Missing	1	0.6
Class Distribution		
Freshman	45	29
Sophomore	43	27.7
Junior	22	14.2
Senior	18	11.6
Other	27	17.4
Course Requirement		
Required for major	86	55.5
Required for minor	16	10.3
Other requirement	26	16.8
Elective	27	17.4

Note. N = 155.

All variables were measured on a Likert-type scale, with values ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Mean scores for servant leadership ranged from 2.49 for emotional healing to 3.58 for altruistic calling (see Table 4). Because the student

satisfaction score was not normally distributed, the median rather than the mean is reported. The median student satisfaction score was 4.0.

Table 4
Servant Leadership Style: Means and Standard Deviations

	M	SD
Altruistic calling	3.58	.90
Emotional healing	2.49	.90
Wisdom	3.50	.83
Persuasive mapping	3.08	.86
Organizational stewardship	3.29	.81

Note. N = 155.

Assumptions for Pearson's correlation. According to the original study design, Pearson's correlation coefficients were to be used to address Research Questions 1 through 5. Assumptions for Pearson's correlation include linearity, the absence of significant outliers, normality, and the continuous nature of the variables (Bishara & Hittner, 2012; Hill & Lewicki, 2007). Following is a discussion of each of the assumptions.

Linearity. The variables (altruistic calling, emotional healing, wisdom, persuasive mapping, organizational stewardship, and student satisfaction with the instructor) were all measured on an interval scale, which can be treated as a continuous measurement. With regard to the test for linearity, which is related to the term linear and derived from the term line (Jackson, 2016), scatterplots showed no evidence to suggest the linearity assumption was violated (see Figures 1 through 5).

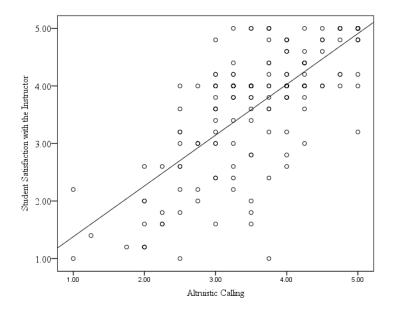


Figure 1. Scatterplot of altruistic calling versus student satisfaction

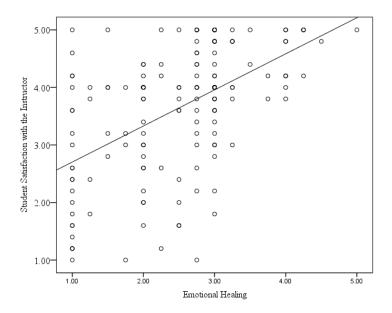


Figure 2. Scatterplot of emotional healing versus student satisfaction

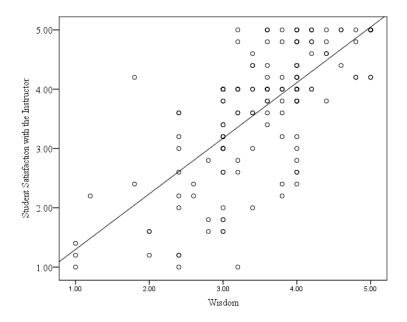


Figure 3. Scatterplot of wisdom versus student satisfaction

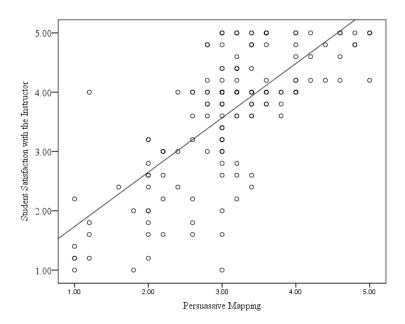


Figure 4. Scatterplot of persuasive mapping versus student satisfaction.

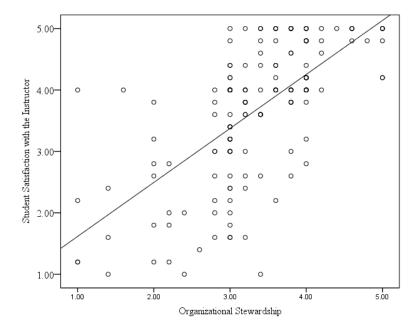


Figure 5. Scatterplot of organizational stewardship versus student satisfaction

Outliers. The present of outliers in the research data may bias the results (Osborne, 2013). Significant outliers are represented by dots on a scatterplot that do not fit with the pattern of the rest of the scatterplot (Schützenmeister, Jensen, & Piepho, 2012). For this research study, outliers were tested by inspecting the scatterplot (see Figures 1 through 5 above). No outliers were identified.

Normality. The final assumption for a Pearson's correlation is that the variables (altruistic calling, emotional healing, wisdom, persuasive mapping, organizational stewardship, and student satisfaction) are normally distributed (Bishara & Hittner, 2012). A normal distribution is a function that shows the variables in a symmetrical bell-shaped graph that resembles a Gaussian distribution (Jackson, 2016; Osborne, 2013). This assumption was evaluated by inspecting histograms separately for the independent and

dependent variables. The student satisfaction score had a strong negative skew and was not normally distributed (see Figure 6).

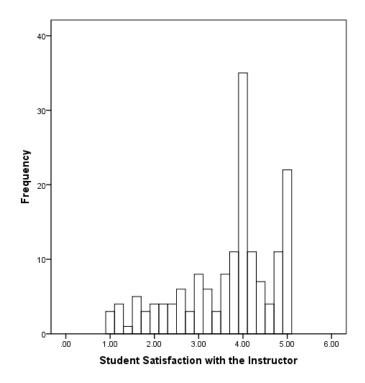


Figure 6. Histogram to test normality for student satisfaction.

Because the assumption of normality was violated, Pearson's correlation was inappropriate for testing Hypotheses 1 through 5. An alternative to Pearson's correlation statistic is Spearman's rho correlation statistic. Spearman's rho does not require normal distributions (Bishra & Hittner, 2012; Jackson, 2016). The only requirement for Spearman's rho is that the relationship between the two variables is monotonic, or linear, rather than curvilinear (Bishara & Hittner, 2012; Hill & Lewicki, 2007). This assumption was confirmed by inspection of the related scatterplots. Thus, Spearman's rho was considered the appropriate statistic for testing Hypotheses 1 through 5.

Assumptions for multiple linear regression. The proposed analysis for testing Hypothesis 6 was multiple linear regression analysis. The assumptions of multiple linear regression consist of linearity, normally distributed errors, and homoscedasticity (Hill & Lewicki, 2007; Williams et al., 2013).

Linearity. The assumption of linearity of relationship between the independent and dependent variables was verified by inspecting scatterplots (see Figures 1 through 5). The scatterplots revealed linearity for all relationships examined in this study.

Normally distributed errors. Multiple linear regression requires the assumption of normally distributed errors. Errors refer to the difference between predicted and observed values (Berry, 1993; Williams et al., 2013). This assumption that the error term has a normal distribution with a mean of 0 was verified by inspecting a histogram of the standardized residuals of the overall regression model (see Figure 7).

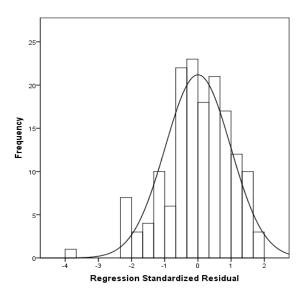


Figure 7. Histogram of regression standardized residuals for testing normality

Homoscedasticity. Homoscedasticity, or homogeneity of covariances, refers to the constant variance of error terms over the range of possible values of the independent variables (Schützenmeister et al., 2012). Scatterplots of the standardized residuals were inspected to verify the homoscedasticity assumption. It was determined that the assumption of homoscedasticity was met.

Multicollinearity. Multicollinearity in multiple regression models refers to strong intercorrelations of two or more independent variables (Hill & Lewicki, 2007). The assumption that multicollinearity was not present was verified by inspection of the variance inflation factors scores, which were all below 5.0, indicating that multicollinearity was not a problem (see Table 4). Because all assumptions for a multiple linear regression were met in this model, a multiple linear regression analysis was performed as originally planned.

Table 5

Collinearity Statistics

Variable	Tolerance	VIF
Altruistic calling	.41	2.42
Persuasive mapping	.38	2.63
Wisdom	.36	2.82

Note. VIF = variance inflation factor.

Research questions. Following is a presentation of Research Question 1 and associated hypotheses.

- **Q1.** What is the relationship, if any, between online student perceptions of the instructors' altruistic calling leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States?
- **H1**₀. There is no correlation between online-student perceptions of the online-instructor's altruistic calling leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.
- H1a. There is a correlation between online-student perceptions of the online-instructor's altruistic calling leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.

The results of the Spearman's correlation showed a strong positive correlation between altruistic calling leadership behavior and student satisfaction, $r_s(153) = 0.70$, p < .001. The null hypothesis H1₀ was rejected. There was evidence to support the alternative hypothesis. Among online students in a community college setting in the south-central United States, students who perceived their instructor to have more altruistic calling leadership behavior tended to have greater satisfaction with their instructor.

Following is a presentation of Research Question 2 and associated hypotheses.

Q2. What is the relationship, if any, between online student perceptions of the instructors' emotional healing leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States?

- **H2**₀. There is no correlation between online-student perceptions of the online-instructor emotional healing leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.
- **H2**_a. There is correlation between online-student perceptions of the online-instructor's emotional healing leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.

The results of the Spearman's correlation showed a strong positive correlation between emotional healing leadership behavior and student satisfaction, $r_s(153) = 0.51$; p < .001. The null hypothesis H2₀ was rejected. There was evidence to support the alternative hypothesis. Among online students in a community college setting in the south-central United States, students who perceived their instructor to have more emotional healing leadership behavior tended to have greater satisfaction with their instructor.

Following is a presentation of Research Question 3 and associated hypotheses.

- **Q3.** What is the relationship, if any, between online student perceptions of the instructors' wisdom leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States?
- H3₀. There is no correlation between online-student perceptions of the online-instructor wisdom leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.

H3a. There is a correlation between online-student perceptions of the online-instructor wisdom leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.

The results of the Spearman's correlation showed a strong positive correlation between wisdom leadership behavior and student satisfaction, $r_s(153) = 0.70$, p < .001. The null hypothesis H3₀ was rejected. There was evidence to support the alternative hypothesis. Among online students in a community college setting in the south-central United States, students who perceived their instructor to have more wisdom leadership behavior tended to have greater satisfaction with their instructor.

Following is a presentation of Research Question 4 and associated hypotheses.

- **Q4.** What is the relationship, if any, between online student perceptions of the instructors' persuasive mapping leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States?
- **H4**₀. There is no correlation between online-student perceptions of the online-instructors' persuasive mapping leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.
- **H4**_a. There is a correlation between online-student perceptions of the online-instructors' persuasive mapping leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.

The results of the Spearman's correlation showed a strong positive correlation between persuasive mapping leadership behavior and student satisfaction, $r_s(153) = 0.69$, p < .001. The null hypothesis H4₀ was rejected. There was evidence to support the

alternative hypothesis. Among online students in a community college setting in the south-central United States, students who perceived their instructor to have more persuasive mapping leadership behavior tended to have greater satisfaction with their instructor.

Following is a presentation of Research Question 5 and associated hypotheses.

Q5. What is the relationship, if any, between online students' perceptions of the instructor's organizational stewardship leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States?

H5₀. There is no correlation between online-student perceptions of the online instructor's organizational stewardship leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.

H5a. There is a correlation between online-student perceptions of the online instructor's organizational stewardship leadership behavior and student satisfaction with the instructor at a community college setting in the south-central United States.

The results of the Spearman's correlation showed a statistically significant, strong positive correlation between organizational stewardship leadership behavior and student satisfaction, $r_s(153) = 0.67$, p < .001. The null hypothesis H5₀ was rejected. There was evidence to support the alternative hypothesis. Among online students in a community college setting in the south-central United States, students who perceived their instructor to have more organizational stewardship leadership behavior tended to have greater satisfaction with their instructor.

Following is a presentation of Research Question 6 and associated hypotheses.

Q6. Which combination of online student perceptions of the instructors' servant leadership behavior characteristics scores better predict student satisfaction with the instructor than any single leadership behavior alone, at a community college setting in the south-central United States?

H6₀. Two or more online-student perceptions of the online-instructor servant leadership behavior characteristics do not better predict student satisfaction with the instructor than any single leadership behavior alone, at a community college setting in the south-central United States.

H6a. Two or more online-student perceptions of the online-instructor servant leadership behavior characteristics better predict student satisfaction with the instructor than any single leadership behavior alone, at a community college setting in the southcentral United States.

The results of a stepwise multiple linear regression analysis showed that the overall model was statistically significant, F(3, 151) = 83.8, p < .001, $R^2 = 0.63$ (see Table 6). Three predictor variables contributed significantly to the model: altruistic calling, persuasive mapping, and wisdom.

Table 6

Stepwise Multiple Regression Analysis Predicting Student Satisfaction With Instructor From Servant Leadership Scores

	Unstandardized		Standardized		
_	Coefficients		Coefficients	<u>_</u>	
Variable a, b	В	Std. Error	Beta	t	p
(Constant)	10	.25		-0.41	.68
Altruistic calling ^c	.43	.10	.35	4.50	<.001
Persuasive mapping ^d	.40	.10	.31	3.85	<.001
Wisdom ^e	.28	.11	.21	2.52	.01

a. Dependent variable: student satisfaction with the instructor

The equation for the model was SS = -.10 +.43*AC +.40*PM + .28*WI, where SS = student satisfaction with the instructor, AC = altruistic calling servant leadership behavior, PM = persuasive mapping servant leadership behavior, and WI = wisdom servant leadership behavior score. On the basis of the *R*² values, altruistic calling was the most significant predictor of student satisfaction, explaining 52% of the total variance. After controlling for altruistic calling, persuasive mapping explained an additional 8.5% of the total variance in the student satisfaction score. After controlling for altruistic calling and persuasive mapping, wisdom explained an additional 1.6% of the total variance in the student satisfaction score. The other two-predictor variables (emotional healing and organizational stewardship) did not contribute significantly to the overall regression model.

On the basis of the unstandardized beta scores, the following interpretation of the model can be made. When controlling for persuasive mapping and wisdom, the average student satisfaction score is expected to increase by .43 points for every 1-point increase

b. F(3, 151) = 83.8, p < .001.; R^2 attributed to the total model = .63

c. R^2 attributed to altruistic calling = .52

d. R^2 attributed to persuasive mapping = .09

e. R^2 attributed to wisdom = .02

in the altruistic calling score. When controlling for altruistic calling and wisdom, the average student satisfaction score is expected to increase by .40 points for every 1-point increase in the persuasive mapping score. When controlling for altruistic calling and persuasive mapping, the average student satisfaction score is expected to increase by .28 points for every 1-point increase in the wisdom score.

The null hypothesis H6₀ was rejected. There was evidence to support the alternative hypothesis. Among online students in a community college setting in the south-central United States, the perceptions of online students regarding three facets of servant leadership (altruistic calling, persuasive mapping, and wisdom) in the online instructor's behavior characteristics were better predictors of student satisfaction with the instructor than any single leadership behavior.

Evaluation of Findings

The purpose of this quantitative correlational study was to evaluate the relationship between online students' perception of their instructor's servant leadership behavior and the student's satisfaction with the online-instructor. The findings of this research were congruent with some the current literature on servant leadership and student satisfaction where positive correlation was established. The servant leadership literature has suggested that when instructors exhibit servant leadership behaviors in a traditional, hybrid, or online classroom settings, this resulted in higher levels of student satisfaction (Ali & Ahmad, 2011; Jacobs, 2011; Huber, 2014; Johnson, Aragon, & Shaik, 2000; Nyamboli, 2014; Setliff, 2014). Servant leadership behaviors also were positively correlated with other related outcomes such as exemplary instruction (Setliff, 2014);

teaching effectiveness (Drury, 2005; Metzcar, 2008); school climate (Black, 2010); job satisfaction (Cerit, 2010; Irving, 2005; Laub, 1999; Shaw & Newton, 2014; van Dierendock & Nuijten, 2011). What distinguishes online learning from other traditional learning modalities is that the restraints of a set time and a set place do not affect online learning milieu (Nayamboli, 2014). Conversely, other researchers failed to establish a link between the perceptions of servant leadership behaviors and student satisfaction when conducted in an online learning setting (Nayamboli, 2014), face-to-face classroom setting (Padron, 2012), or some other associated outcome such as effective teaching (Jacobs, 2011). These researchers measured servant leadership at the organizational level rather than at the individual level. Padron's (2012) research was carried in a brick and motor classroom setting where student satisfaction was negatively correlated with the perception of the organizational level of servant leadership.

In order to discover if any relationship existed between online student satisfaction and servant leadership behaviors of online instructors, six research questions were presented. The following research findings were framed around these six questions and their corresponding hypotheses. In addition, these findings were presented in light of the servant leadership and student satisfaction literature.

The first research question hypothesized a positive correlation between student perceptions of the instructors' altruistic calling leadership behavior and student satisfaction with the instructor. The relationship between online student perceptions of the instructors' altruistic calling leadership behavior and student satisfaction with the instructor was examined through Research Question 1. The finding showed that there

was a statistically significant, strong positive correlation between student satisfaction and altruistic calling. Therefore, it was concluded that among online students in a community college setting in the south-central United States, those who perceive their instructor to have more of an altruistic calling servant leadership behavior tend to have greater satisfaction with their instructor. This finding is consistent with the theory that was posited by many scholars regarding servant leadership as one behavior of leadership that has the potential to positively influence student satisfaction (Huber, 2014; Jacobs, 2011; Letizia, 2014; Nyamboli, 2014; Padron, 2012; Reed & Swanson, 2014; Searle, 2011; van de bunt-Kokhuis & Sultan, 2013). Furthermore, this finding is consistent with the literature regarding instructors who express personal consideration; and offer intellectual stimulation, motivation, and inspiration (Bogler, Caspi, & Roccas, 2013), tend to have more satisfied students; however, this is the first time that servant leadership theory was empirically tested at the individual leader's level rather than at the organization level.

Conversely, the above findings were inconsistent with Nyamboli (2014) who examined whether or not the perception of servant leadership at the organizational level was related to student satisfaction with their online learning experience. In this research, Nyamboli (2014) had a total of 68 doctoral level students, and 25 faculty and staff completed the Organization Leadership Assessment (OLA) survey. In addition, 65 doctoral level students completed the Distance Education Learning Environment surgery (DELES). Nyamboli (2014) findings showed that online doctoral students were satisfied with their online learning experience (*M*=4.17; *SD*=0.55). Furthermore, Nyamboli (2014) discovered that the participants perceived a moderate level of servant eldership at

the organizational level; however, there was no statistically significant relationship between the students' perception of the organization level of servant leadership and satisfaction with e-learning (r=0.02, p=0.88).

The second research question hypothesized a positive correlation between student perceptions of the instructors' emotional healing leadership behavior and student satisfaction with the instructor. The relationship between online student perceptions of the instructors' emotional healing leadership behavior and student satisfaction with the instructor was examined through Research Question 2. The results of Research Question 2 showed that there was a statistically significant, strong positive correlation between student satisfaction and emotional healing leadership behavior. Therefore, it was concluded that among online students in a community college setting in the south-central United States, those who perceive their instructor to have more of emotional healing servant leadership behavior tend to have greater satisfaction with their instructor. This finding is consistent with the theory that was posited by many scholars regarding servant leadership as one behavior of leadership that has the potential to positively influence student satisfaction (Huber, 2014; Jacobs, 2011; Letizia, 2014; Padron, 2012; Reed & Swanson, 2014; Searle, 2011; van de bunt-Kokhuis & Sultan, 2013). Furthermore, this finding is consistent with the literature regarding instructors who show empathy and caring (Hazel et al., 2014; Ladyshewsky, 2013), tend to have more satisfied students. However, this is the first time that servant leadership theory was empirically tested at the individual leaders' level rather than at the organizational level at an online learning setting.

Conversely, the above findings were in inconsistent with Nyamboli (2014) who examined whether or not the perception of servant leadership at the organizational level was related to student satisfaction with their online learning experience. In this research, Nyamboli (2014) had 68 doctoral level students, and 25 faculty and staff completed the Organization Leadership Assessment (OLA) survey. In addition, 65 doctoral level students completed the Distance Education Learning Environment surgery (DELES). Nyamboli (2014) findings showed that online doctoral students were satisfied with their online learning experience (M=4.17; SD=0.55). Furthermore, Nyamboli (2014) discovered that the participants perceived a moderate level of servant eldership at the organizational level; however, there was no statistically significant relationship between the students' perception of the organization level of servant leadership and satisfaction with e-learning (r=0.02, p=0.88).

The third research question hypothesized a positive correlation between student perceptions of the instructors' wisdom leadership behavior and student satisfaction with the instructor. The relationship between online student perceptions of the instructors' wisdom leadership behavior and student satisfaction with the instructor was examined through Research Questions 3. The results of Research Question 3 showed that there was a statistically significant, strong positive correlation between student satisfaction and wisdom leadership behavior. Therefore, it was concluded that among online students in a community college setting in the south-central United States, those who perceive their instructor to have more wisdom. This finding is consistent with the theory that was posited by many scholars regarding servant leadership as one behavior of leadership that

has the potential to positively influence student satisfaction (Huber, 2014; Jacobs, 2011; Letizia, 2014; Padron, 2012; Reed & Swanson, 2014; Searle, 2011; van de bunt-Kokhuis & Sultan, 2013). However, this is the first time that servant leadership theory was empirically tested at the individual leader's level rather than at the organizational level at an online learning setting.

Wise leaders have the ability to see what is needed in the present circumstances and how to meet these needs (Barbuto & Wheeler, 2006; Paul & Fitzpatrick, 2015; Wheeler, 2012). Servant teachers seek to impart wisdom and not only knowledge (Greenleaf, 1977). Wisdom is the application of knowledge gained in real-life situations. In these situations, servant teachers demonstrate cognizance of their environments and can predict future consequences through cues from observing their surroundings (Barbuto & Wheeler, 2006). Furthermore, the teacher is aware of what is up-to-date and current; able to predict consequences of decisions; has the keen awareness of what is going on and of what is good for the students; is engaged and has a sense of discernment (Paul & Fitzpatrick, 2015; Setliff, 2014).

Conversely, the above findings were in inconsistent with Nyamboli (2014) who examined whether or not the perception of servant leadership at the organizational level was related to student satisfaction with their online learning experience. In this research, Nyamboli (2014) had 68 doctoral level students, and 25 faculty and staff completed the Organization Leadership Assessment (OLA) survey. In addition, 65 doctoral level students completed the Distance Education Learning Environment surgery (DELES). Nyamboli (2014) findings showed that online doctoral students were satisfied with their

online learning experience (M=4.17; SD=0.55). Furthermore, Nyamboli (2014) discovered that the participants perceived a moderate level of servant eldership at the organizational level; however, there was no statistically significant relationship between the students' perception of the organization level of servant leadership and satisfaction with e-learning (r=0.02, p=0.88).

The fourth research question hypothesized a positive correlation between student perceptions of the instructors' persuasive mapping leadership behavior and student satisfaction with the instructor. The relationship between online student perceptions of the instructors' persuasive mapping leadership behavior and student satisfaction with the instructor was examined through Research Questions 4. The results of Research Question 4 showed that there was a statistically significant, strong positive correlation between student satisfaction and persuasive mapping leadership behavior. Therefore, it was concluded that among online students in a community college setting in the southcentral United States, those who perceive their instructor to have more persuasive mapping servant leadership behavior tend to have greater satisfaction with their instructor. This finding is consistent with the theory that was posited by many scholars regarding servant leadership as one behavior of leadership that has the potential to positively influence student satisfaction (Huber, 2014; Jacobs, 2011; Letizia, 2014; Padron, 2012; Reed & Swanson, 2014; Searle, 2011; van de bunt-Kokhuis & Sultan, 2013). However, this is the first time that servant leadership theory was empirically tested at the individual leader's level rather than at the organizational level at an online learning setting.

Leaders who are skilled in persuasive mapping have the ability to cast a vision for the future; mapping and conceptualizing issues; and persuading other to be involved to do things and achieve goals (Barbuto & Wheeler, 2006; Paul & Fitzpatrick, 2015; Spears, 1995; Wheeler, 2012). As such, effective teachers who exhibit conceptual thinking help their students cultivate long-term goals and values while they are working on their professional growth (Noland & Richards, 2015; Ren, 2010). In this way, these teachers are better able to help and guide their students by assisting them in grasping key constructs through strategic placement of content (Setliff, 2014).

Conversely, the above findings were in inconsistent with Nyamboli (2014) who examined whether or not the perception of servant leadership at the organizational level was related to student satisfaction with their online learning experience. In this research, Nyamboli (2014) had 68 doctoral level students, and 25 faculty and staff completed the Organization Leadership Assessment (OLA) survey. In addition, 65 doctoral level students completed the Distance Education Learning Environment surgery (DELES). Nyamboli (2014) findings showed that online doctoral students were satisfied with their online learning experience (M=4.17; SD=0.55). Furthermore, Nyamboli (2014) discovered that the participants perceived a moderate level of servant eldership at the organizational level; however, there was no statistically significant relationship between the students' perception of the organization level of servant leadership and satisfaction with e-learning (r=0.02, p=0.88).

The fifth research question hypothesized a positive correlation between student perceptions of the instructors' organizational stewardship leadership behavior and student

satisfaction with the instructor. The relationship between online student perceptions of the instructors' organizational stewardship leadership behavior and student satisfaction with the instructor was examined through Research Questions 5. The results of Research Question 5 showed that there was a statistically significant, strong positive correlation between student satisfaction and organizational stewardship leadership behavior. Therefore, it was concluded that among online students in a community college setting in the south-central United States, those who perceive their instructor to have more organizational stewardship servant leadership behavior tend to have greater satisfaction with their instructor. Organizational stewardship implies the leader's ability to build a community of trust within the organization that has the potential to affect positively the larger society for the greater good (Barbuto & Wheeler, 2006). Similarly, the need to build community is essential to the success of online learning, an environment in which modern technologies have transformed the way in which teachers teach and interact with their students (Garcia, 2015; Reed & Swanson, 2014; van de Bunt-Kokhius & Sultan, 2012). Indeed, low levels of personal interaction between teachers and students in an online educational community appear to be a key factor contributing to low retention rates (Komarraju et al., 2010). However, when teachers strive to build a community of nurturing relationships with their students, students display better learning outcomes and higher levels of academic achievement and satisfaction (Espasa & Meneses, 2010; Komarraju et al., 2010; Kuo, Walker, Schroder, & Belland, 2014). Furthermore, students consider outstanding instructors as those who are involved with activities outside the classroom (Setliff, 2014).

The findings of the fifth research question were consistent with the theory that was posited by many scholars regarding servant leadership as one behavior of leadership that has the potential to positively influence student satisfaction (Huber, 2014; Jacobs, 2011; Letizia, 2014; Padron, 2012; Reed & Swanson, 2014; Searle, 2011; van de bunt-Kokhuis & Sultan, 2013), or other related outcome such as organizational commitment (Berry, 2014). However, this is the first time that servant leadership theory was empirically tested at the individual leader's level rather than at the organizational level at an online learning setting.

Conversely, the above findings were inconsistent with the findings of Nyamboli (2014) in an examination of whether the perception of servant leadership at the organizational level was related to student satisfaction with their online learning experience. In this research, Nyamboli (2014) had 68 doctoral level students, and 25 faculty and staff completed the Organization Leadership Assessment (OLA) survey. In addition, 65 doctoral level students completed the Distance Education Learning Environment surgery (DELES). Nyamboli (2014) findings showed that online doctoral students were satisfied with their online learning experience (M=4.17, SD=0.55). Furthermore, Nyamboli (2014) discovered that the participants perceived a moderate level of servant eldership at the organizational level; however, there was no statistically significant relationship between the students' perception of the organization level of servant leadership and satisfaction with e-learning (r=0.02, p=0.88).

The sixth research question hypnotized that two or more online-student perceptions of the online instructor's servant leadership behavior characteristics better

predict student satisfaction with the instructor than any single leadership behavior alone. Which combination of online students' perceptions of the instructors' servant leadership behavior characteristics scores better predicts student satisfaction with the instructor than any single leadership behavior alone was examined through Research Questions 6. The results of Research Question 6 showed that three of the five independent variables (servant leadership behaviors) were statistically significant: 1) altruistic calling; 2) persuasive mapping and; 3) wisdom. Therefore, it was concluded that two or more online-student perceptions of the online instructor's servant leadership behavior characteristics better predict student satisfaction with the instructor than any single leadership behavior alone. The findings of the sixth research question were similar to Setliff's (2014) research that indicated that of the five servant leadership behaviors (altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship), wisdom was statistically significant with exemplary instructors with a 95% confidence level. In addition, altruistic calling and persuasive mapping were statistically correlated with exemplary instructors with about 90% confidence level.

The findings of this research study corroborated other research findings in which the servant leadership behaviors of (altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship) may create a positive environment where students' performance is enhanced (Huber, 2014; Jacobs, 2011; Letizia, 2014; Nyamboli, 2014; Padron, 2012; Reed & Swanson, 2014; Searle, 2011; Setliff, 2014; van de bunt-Kokhuis & Sultan, 2013). In addition, these research findings indicate that online students at a community college were able to perceive the servant leadership behaviors of

their online instructors as they interacted with them within the virtual learning environment. This suggests that institutions of higher learning that desire to achieve an increased student satisfaction within the online learning setting should consider ways in which faculty members can be trained on integrating servant leadership behaviors in their pedagogical approach to the online classroom, with a particular focus on altruistic calling, persuasive mapping, and wisdom servant leadership behaviors.

Summary

The aim of this chapter was to present the results of the research findings. These findings have shown that the SLQ and the SET instruments are reliable and valid to be used for research on servant leadership and student satisfaction in online learning. The purpose of this quantitative correlational study was to evaluate the relationship between students' perception of their instructor's servant leadership behavior and the student's satisfaction with the online-instructor at a community college setting in the south central United States. The population for the study consisted of online students who were enrolled in only one online class during the 2015 fall semester. Among those invited to participate in the study, 155 agreed to informed consent and completed all of the survey questions necessary to compute the independent and dependent variables.

All five-servant leadership behavior scores were strongly positively correlated with student satisfaction. Among the five servant leadership behavior scores, AC was the strongest predictor of SS. When considering all five servant leadership behaviors collectively, AC, PM and WI were the strongest predictors of SS. The results of this research study have provided a better understanding of the relationship between

individual instructor leadership behavior variables and online student satisfaction at a community college setting, and thus contributed to the paucity of the literature that currently exists on this subject.

Online learning is experiencing an upward growth of student enrollment, even when the overall enrollment in higher education is suffering from a decline (Allan & Seaman, 2016). Because online learning is considered by many higher education administrators to be a major component in their long-term strategic planning (Allan & Seaman, 2016), many scholars have suggested that more research is needed in order to understand the factors that may enhance the teaching experience of the faculty and the learning experience of the students (Naymboli, 2014). Some researchers have suggested that one of these factors that may increase student satisfaction in an online learning setting is the servant leadership model (Huber, 2014; Nayamboli, 2014; van de Bunt-Kokhius & Sultan, 2012). One of the main challenges for the current study was that, to date, no research study sought to determine by empirical methods the extent to which individual servant leadership behaviors of online instructors are related to online student satisfaction. The findings of this research study have filled the gap that currently exists in the literature. Furthermore, this research has corroborated what the literature suggested regarding servant leadership application in a traditional face-to-face classroom setting resulted in higher levels of student satisfaction (Jacobs 2011; Nichols, 2010), or other related factors such as exemplary instruction (Setliff, 2014), teaching effectiveness (Metzcar, 2008), job satisfaction and organizational commitment (Berry, 2014), and school climate (Black, 2010).

Chapter 5: Implications, Recommendations, and Conclusions

Servant leadership is a leadership behavior that has the potential to improve student satisfaction with online education (Huber, 2014; Nyamboli, 2014; Reed & Swanson, 2014; van de Bunt-Kokhius & Sultan, 2012). An examination of servant leadership at the level of individual leaders can provide an opportunity to consider key individual characteristics of servant leadership (Noland & Richards, 2015). The problem addressed in this study was the lack of clarity regarding how individual components of servant leadership among online instructors were related to online-student satisfaction (Bogler et al., 2013; Nyamboli, 2014; Yates, 2011). Student satisfaction with the instructor is linked to persistence in online education (Hart, 2012; Joo et al., 2013; Schreiner & Nelson, 2013).

The purpose of this quantitative, correlational study was to evaluate the relationship between student perceptions of their instructor's servant leadership behaviors and student satisfaction with the online instructor. A correlational design was used to evaluate the extent to which the components of servant leadership (altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship) in an online instructor predicted online-student satisfaction. The five components of servant leadership were the predictor variables, and student satisfaction was the criterion variable. The components of servant leadership were measured with the SLQ (Barbuto & Wheeler, 2006), and online-student satisfaction was measured with the SET (Tsai & Lin, 2012). The relationship between the predictor variables and the criterion variable was examined using Spearman's rho correlation coefficients and a multiple linear regression.

Chapter 5 presents the implications of the findings for each research question in this study. Recommendations for practice are then presented, including a proposal for the adoption of a servant leadership model for training online faculty members. The chapter concludes with recommendations for future research and a summary.

Limitations. There were several limitations to this study. The study included only adult students who enrolled in a particular online class during the fall 2015 semester at a community college setting in the south-central United States. Expanding the scope of this research to other community colleges, 4-yer public colleges, graduate programs, and to private colleges, would extend the generalizability of the findings. Another limitation was that responses to the follower version of the SLQ survey questions may have been biased or subjective. Students may have been biased in rating their instructors higher or lower than the instructors would have rated themselves if these instructors had been given the leader version of the SLQ to evaluate their servant leadership behavior.

This research was limited by the cross-sectional design, which provides only a snapshot view of a situation at a single time (Jackson, 2016). Because of this limitation, changes in the relationship between servant leadership behaviors of online instructors and student satisfaction could not be observed over an extended period (Lu et al., 2013). Finally, 68 (30.5%) of the respondents failed to answer all the survey questions needed to compute the independent and dependent variables, resulting in nonresponse bias. This nonresponse rate may limit the generalizability of the results to the population of interest.

Ethical issues. The data collection for the current study commenced after approval was granted from the IRB at Northcentral University and the IRB committee at

the targeted community college. This study was compliant with all the ethical requirements of both IRBs. Participants were contacted via the community college email system with an invitation to participate in the study. The email message informed the participants that their involvement in the study was voluntary, that responses would be kept confidential, that they were free to withdraw from the study at any time, and that they were free to refuse to answer any questions. To encourage more participation in the study, participants were given an opportunity to win one of five gift cards. Participants were asked to enter their email addresses in a separate survey to ensure that the email addresses of those who chose to participate in the prize drawing were not connected with survey responses. All data were saved in an encrypted file on a password-protected computer in a locked office. The data will be destroyed after 7 years.

Implications

Student satisfaction with the instructor is linked to persistence (Hart, 2012; Joo et al., 2013; Paul & Fitzpatrick, 2015; Schreiner & Nelson, 2013), and student persistence rates are poor (Hacheyet al., 2013; Harris & LeBrun, 2013; Larrier & Castano-Bishop, 2011; Marx, 2011; Xu & Jaggars, 2011). An examination of factors that may be related to student satisfaction with the instructor, in particular the leadership characteristics of college instructors, was needed. The findings of the current study corroborated the results of earlier studies in which servant leadership behaviors (altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship) created positive environments in which student performance was enhanced (Huber, 2014; Jacobs,

2011; Letizia, 2014; Nyamboli, 2014; Padron, 2012; Reed & Swanson, 2014; Searle,2011; Setliff, 2014; van de bunt-Kokhuis & Sultan, 2013).

The findings of this study showed that students were able to observe servant leadership behavior in their online instructors, during interaction within the virtual learning environment. This finding was the first empirical validation of the application of individual servant leadership behaviors in an online learning environment and the relationship of these behaviors to student satisfaction. This study validated that servant leadership theory is based not entirely on anecdotal tales (Russell & Stone, 2002) but also on empirical research. As such, the current research has shown that servant leadership theory has the potential for enhancing students' satisfaction with the online instructor, thereby advancing the organizational development of institutions of higher education.

Setliff (2014) suggested using the *Servant Leader Development Model for Faculty by Antecedent*, which was used for data collection and feedback regarding servant leadership behaviors (see Table 7). In the current study, this model was adapted and modified for an online classroom setting based on the results of the current research.

Based on this model, online instructors, administrators, and other stakeholders will be able to have an ongoing feedback on the servant leader behaviors and their application in an online classroom setting. Following is a discussion of the implications for each research question.

Altruistic calling and student satisfaction with the instructor. Given the results of the Spearman's correlation, the null hypothesis for Research Question 1 was rejected, and it was concluded that among online students in a community college setting

in the south-central United States, those who perceive their instructor to have more of an altruistic calling servant leadership behavior tend to have greater satisfaction with their instructor.

Table 7

Integrated Servant Leader Development Model: Antecedent and Demonstrated Behavior

Antecedent	Demonstrated behavior	Source
Altruistic calling	Willing to provide extra time to help students understand the materials	SI
8	Encourages students to ask questions without a sense of stress	SI
	Views teaching as a special calling, not a job	SIPG
	Is a source of positive energy	SIPG
	Believes success is measured by the success of students and peers	SIPG
Emotional	Willing to provide listening ears and a safe environment for the	SI
healing	students when they face personal trauma	
	Encourages students to share their feelings regarding the course	SI
	Provides a meaningful input regarding mending the hard feelings	SI
XX7' 1	students face	CI
Wisdom	Develops and creates "teachable moments"	SI
	Creates a conducive learning environment	SI
	Surveys the students' understanding of prior information	SI
	Clearly describes the objectives of the day's material and how it	SI
	builds upon prior learning	αī
	Uses various media to add depth, contrast, and context effectively to illuminate and amplify salient points	SI
	Uses multimedia to bring outside experts into the online classroom.	SI
Organizational stewardship	Develops and communicates positive regard for the organization	SIPG
r	Describes connections with other organizations and the community at large	PG
	Emphasizes the social importance of group involvement	SIPG
	Describes and communicates the importance of service to others	SIPG
	Describes and demonstrates wise stewardship	SIPG
	Emphasizes that each person must take responsibility	SIPG
Persuasive	Seen as actively involved in student issues	SIPG
mapping		
	Has the ability to discuss the importance of direction with students	SI
	Has the ability to motivate students to perform at their highest level	SI
	Has the ability to communicate in a fashion that inspires others to follow	SIPG
	Has the ability to follow a rational moral compass	SIPG
	Has the ability to obtain consensus through a highly developed interpersonal skill set	PG
	Is seen as one who can reduce confrontation	PG

Note. SI = student instructor review. PG = peer group review. SIPG = student instructor review and peer group review. Adapted from "A study of student perceptions of exemplary instruction and servant leader behavioral qualities," (pp. 62-63) by Richard C. Setliff, Jr., 2014, Ph.D. dissertation, Indiana State University, Terre Haute, Indiana. Retrieved from Dissertations & Thesis: Full Text. (1526012795). Used with permission.

The strong positive correlation found in this study between a perceived leadership behavior of altruistic calling and student satisfaction was consistent with previous research. Altruistic calling refers to the leader's deep-rooted hope and desire to make a positive impact on the lives of the followers by working hard to meet their needs and by placing their interests first (Barbuto & Wheeler, 2006; Greenleaf, 1978; Paul & Fitzpatrick, 2015; Wheeler, 2012). Applications of servant leadership behaviors in the classroom have been widely associated with higher levels of student satisfaction (Huber, 2014; Jacobs, 2011; Nyamboli, 2014; Paul & Fitzpatrick, 2015; Setliff, 2014). Huber (2014) concluded that the application of all the characteristics of servant leadership (Greenleaf, 1977; Spears, 1995) would increase student satisfaction in any online postsecondary setting. However, the current study was the first to demonstrate this conclusion with quantitative data derived from the students themselves.

Teachers with altruistic calling are committed to serving because they have an internal and an external call to serve and help their students by putting aside their self-interest (Barbuto & Wheeler, 2006; Greenleaf, 1978; Paul & Fitzpatrick, 2015; Wheeler, 2012). Altruistic calling is a characteristic that sets servant leadership apart from other leadership theories, such as transformational leadership. Although the primary focus of transformational leaders is on the wellbeing of the organization, and their attention is focused on building a commitment toward the organization and its objectives, the attention of servant leaders is mainly on the wellbeing of the followers as a matter of first importance (Letizia, 2014; Northouse, 2013; van Dierendonck et al., 2014). The

following actions on the part of servant leaders are considered the antecedents to altruistic calling: (a) placing the students' best interest ahead of their own, (b) doing everything they can to help the student grow, (c) sacrificing their interests to meet the students' learning needs, and (d) going above and beyond the call of duty to meet student learning needs (Setliff, 2014).

Online instructors who have demonstrated the servant leadership behavior of altruistic calling are interested in both their own growth and the growth of their students (Letizia, 2014; Noland & Richards, 2015; Sipe & Frick, 2009). The commitment of servant teachers to growth is a core issue in the nature of teaching (van de Bunt-Kokhuis & Sultan, 2012). Ensuring that other people grow is the ultimate goal of servant leadership because it helps followers become autonomous and less dependent on the leaders (Jacobs, 2011; Northouse, 2013).

By modeling the servant leadership behavior of altruistic calling, servant teachers show that they are lifelong learners, seek what is best for students first, encourage ongoing feedback from students, hold themselves accountable for the growth of their students, empower others, and celebrate the strengths and accomplishments of their students (Johnson & Vishwanath, 2011; Noland & Richards, 2015). Servant teachers put others' interests ahead of their own and have a deep-rooted desire to make a positive and lasting difference in the lives of their followers (Barbuto & Wheeler, 2006; Greenleaf, 1977). This commitment to the growth of others is the leader's altruistic calling (Barbuto & Wheeler, 2006).

Emotional healing and student satisfaction with the instructor. Given the results of the Spearman's correlation, the null hypothesis for Research Question 2 was rejected, and it was concluded that among online students in a community college setting in the south-central United States, those who perceive their instructor to have more of an emotional healing servant leadership behavior tend to have greater satisfaction with their instructor. The strong positive correlation found in this study between a perceived leadership behavior of emotional healing and student satisfaction was consistent with previous research. Emotional healing refers to the leader's devotion and ability to help followers recover from difficult and stressful circumstances and to assist them in restoring their broken dreams (Barbuto & Wheeler, 2006; Greenleaf, 1977; Wheeler, 2012). Leaders must have the ability to understand their followers so they can best serve their needs (Beck, 2014; Paul & Fitzpatrick, 2015). For servant leaders to understand their followers, these leaders must have the ability to listen in order to communicate with their followers effectively (Hunter et al., 2013; Paul & Fitzpatrick, 2015). Teachers who exhibit servant leadership listen to their inner voices and to their students as well (Hannay et al., 2010).

Servant teachers are careful to provide classroom activities that promote keen listening skills and stimulate reflection among students (Crippen, 2010; Noland & Richards, 2015). Furthermore, instructors who practice this form of empathic listening aim to develop positive relationships with students through caring, accepting, showing compassion, and authentically valuing the students' contributions (Crippen, 2010). In an online milieu, servant teachers who exhibit emotional healing can celebrate diversity and

give room for students' ideas, opinions, and interests, being aware that attitudes, behaviors, and expectations differ from culture to culture (van de Bunt-Kokhuis & Sultan, 2012).

The emotional healing of followers from distress is fostered through the leader's skill in being a good listener, empathetic, and caring (Barbuto & Wheeler, 2006; Greenleaf, 1977; Paul & Fitzpatrick, 2015; Wheeler, 2012). In light of the results presented in this study, emotional healing implies that online students are satisfied when online instructors provide a safe environment for students to share their feelings and emotional issues and to receive meaningful feedback (Setliff, 2014). The following action constructs are considered to be antecedents to emotional healing: (a) this person is the one I would go to if I had a personal trauma, (b) this person is good at helping me with emotional issues, (c) this person is talented at helping me heal from emotional issues, and (d) this person could help me mend my hard feelings (Setliff, 2014).

Wisdom and student satisfaction with the instructor. Given the results of the Spearman's correlation, the null hypothesis for Research Question 3 was rejected, and it was concluded that among online students in a community college setting in the south-central United States, those who perceive their instructor to have more of wisdom servant leadership behavior tend to have greater satisfaction with their instructor. The strong positive correlation found in this study between a perceived leadership behavior of wisdom and student satisfaction was consistent with previous research. Wisdom is the application of knowledge gained in real-life situations (Barbuto & Wheeler, 2006; Wheeler, 2012). Servant teachers seek to impart wisdom and not only knowledge

(Greenleaf, 1977; Paul & Fitzpatrick, 2015). In real-life situations, servant teachers demonstrate cognizance of their environments and can predict future consequences through cues from observing their surroundings (Barbuto & Wheeler, 2006).

Wisdom is the application of knowledge gained in real-life situations. Wisdom implies the leader's ability to observe, understand, and anticipate the consequences of their surroundings (Barbuto & Wheeler, 2006; Paul & Fitzpatrick, 2015; Wheeler, 2012). Wise leaders have the ability to see a big picture by making connections across the environment and organization as they decide the future goals and direction of the organization. Wise leaders have the ability to see what is needed in the present circumstances and how to meet these needs (Barbuto & Wheeler, 2006; Paul & Fitzpatrick, 2015; Wheeler, 2012). Servant teachers seek to impart wisdom and not only knowledge (Greenleaf, 1977). In real-life situations, servant teachers demonstrate cognizance of their environments and can predict future consequences through cues from observing their surroundings (Barbuto & Wheeler, 2006).

A servant teacher is aware of what is up-to-date and current, is able to predict consequences of decisions, has the keen awareness of what is happening and of what is good for the students, is engaged, and has a sense of discernment (Paul & Fitzpatrick, 2015; Setliff, 2014). When exhibited, wisdom may increase student satisfaction. The following action constructs are considered antecedents to wisdom: (a) this person seems alert to what is happening, (b) this person is good at anticipating the consequences of decisions, (c) this person has awareness of what is happening, and (d) this person seems in touch with what is happening.

Persuasive mapping and student satisfaction with the instructor. Given the results of the Spearman's correlation, the null hypothesis for Research Question 4 was rejected, and it was concluded that among online students in a community college setting in the south-central United States, those who perceive their instructor to have more of persuasive mapping servant leadership behavior tend to have greater satisfaction with their instructor. The strong positive correlation found in this study between a perceived leadership behavior of persuasive mapping and student satisfaction was consistent with previous research. Persuasive mapping refers to the leader's ability to learn from the past, understand the challenges of the present, and anticipate the potential results of future decisions (Barbuto & Wheeler, 2006; Spears, 1995; Wheeler, 2012). Servant leaders have the ability of progressive thinking by conceptualization: by going beyond the immediate to the future and by seeing the larger picture (Crippen, 2010; Johnson & Vishwanath, 2011; Paul & Fitzpatrick, 2015). As such, effective teachers who exhibit conceptual thinking help their students cultivate long-term goals and values while they are working on their professional growth (Ren, 2010). In this way, these teachers are better able to help and guide their students.

Servant-teachers help their students become aware of the complexities of the issues they face in life and provide the tools that will help the students work through those issues (Hays, 2008; Noland & Richards, 2015). Servant teachers make students aware that the simplest solution is not necessarily the best course of action for complex situations (Hays, 2008; Paul & Fitzpatrick, 2015). Furthermore, servant teachers understand that to endure, positive change in students must come from within. Therefore,

servant teachers are willing to share power in the classroom to build consensus and persuasion rather than using their sole authority to create temporary change among students (Crippen, 2010).

Leaders who are skilled in persuasive mapping have the ability to cast a vision for the future, to map and conceptualize issues; and to persuade others to be involved to do things and achieve goals (Paul & Fitzpatrick, 2015; Wheeler, 2012). As such, effective teachers who exhibit conceptual thinking help their students cultivate long-term goals and values while they are working on their professional growth (Noland & Richards, 2015). In this way, these teachers are better able to help and guide their students by assisting them in grasping key constructs through strategic placement of content (Setliff, 2014). Servant educators help their students become aware of the complexities of the issues they face in life and provide the tools that will help the students work through these matters by helping them internalizing and reaching the goal of self-actualization (Hays, 2008; Paul & Fitzpatrick, 2015; Setliff, 2014).

Servant instructors make students aware that the simplest solution is not necessarily the best course of action for complex situations (Hays, 2008). The following action constructs are considered to be antecedents to persuasive mapping: (a) this person offers compelling reasons to get me to do things, (b) this person encourages me to dream "big dreams" about the organization, (c) this person is very persuasive, (d) this person is good at convincing me to do things, and (e) this person is gifted when it comes to persuading me. When exhibited, persuasive mapping may increase student satisfaction.

Organizational stewardship and student satisfaction with the instructor.

Given the results of the Spearman's correlation, the null hypothesis for Research Question 5 was rejected, and it was concluded that among online students in a community college setting in the south-central United States, those who perceive their instructor to have more of organization stewardship leadership behavior tend to have greater satisfaction with their instructor. The strong positive correlation found in this study between a perceived leadership behavior of organizational stewardship and student satisfaction was consistent with previous research. Organizational stewardship refers to the leader's ability to build a community of trust within the organization that is able to affect the larger society for the greater good (Barbuto & Wheeler, 2006; Greenleaf, 1977). Building a community is an essential component of organizational stewardship as practiced by servant leaders (Fotch & Ponton, 2015; Northouse, 2013; Paul & Fitzpatrick, 2015). Servant leaders recognize the danger of losing community in the context of larger institutions (Stewart, 2013). Servant leaders resist the natural move to a larger organizational setting that may destroy the sense of community (Spears, 1995). Instead, they seek to build communities of individuals by highlighting the contribution of these individuals as vital to health and mission of the larger organization.

Organizational stewardship implies the leader's ability to build a community of trust within the organization (Barbuto & Wheeler, 2006). Such a community has the potential to affect the larger society for the greater good. Servant leaders have this positive effect by providing programs and outreach opportunities that serve the

community. These programs serve the community by giving back to it and leaving it better than it was (Paul & Fitzpatrick, 2015).

The need to build community is essential to the success of online learning, an environment in which modern technologies have transformed the way in which teachers teach and interact with their students (Garcia, 2015; Reed & Swanson, 2014; van de Bunt-Kokhius & Sultan, 2012). Indeed, low levels of personal interaction between teachers and students in an online educational community appear to be a key factor contributing to low retention rates (Komarraju et al., 2010). However, when teachers strive to build a community of nurturing relationships with their students, students display better learning outcomes and higher levels of academic achievement and satisfaction (Espasa & Meneses, 2010; Komarraju et al., 2010; Kuo, Walker, Schroder, & Belland, 2014). Furthermore, students consider outstanding instructors as those who are involved with activities outside the classroom (Setliff, 2014).

The need to build community is essential to the success of online learning, an environment in which modern technologies have transformed the way in which teachers teach and interact with their students (Garcia, 2015; Reed & Swanson, 2014; van de Bunt-Kokhius & Sultan, 2012). Indeed, low levels of personal interaction between teachers and students in an online educational community appear to be a critical factor contributing to low retention rates (Komarraju et al., 2010; Noland & Richards, 2015). However, when teachers strive to build a community of nurturing relationships with their students, students display better learning outcomes and higher levels of academic

achievement and satisfaction (Espasa & Meneses, 2010; Komarraju et al., 2010; Kuo, Walker, Schroder, & Belland, 2014; Paul & Fitzpatrick, 2015).

The combination of altruistic calling, persuasive mapping, and wisdom.

Given the results of the stepwise multiple linear regression analysis, the null hypothesis for Research Question 6 was rejected, and it was concluded that among online students in a community college setting in the south-central United States, a combination of three of the five servant leadership behaviors better predicted student satisfaction than any single leadership behavior alone: (a) altruistic calling, (b) persuasive mapping, and (c) wisdom. This finding was consistent with previous research. Servant leadership, with its focus on making a positive difference in the lives of the followers through trust, compassion, dedication to the growth of people, building meaningful relationships, and empathy, is well suited to reconcile an environment of high technology with personal interaction in an online environment (Noland & Richards, 2015; Paul & Fitzpatrick, 2015; Reed & Swanson, 2014; van de Bunt-Kokhius & Sultan, 2012). As servant leaders, effective servant teachers have the wisdom necessary to build a community of learning that authentically values students and helps them achieve their individual goals (Stewart, 2013). When leading and teaching in an online setting, servant leaders can build a sense of community through virtual teams that foster inclusion, information sharing, trust, meaningful relationships, and equal access (Berry, 2014; Huber, 2014; Nyamboli, 2014; Reed & Swanson, 2014).

For this virtual learning community to function effectively amid the challenges of divergent talents and cultures, the essential elements of honesty, responsiveness,

relevance, respect, openness, and empowerment must be present among faculty members (Berry, 2014; Palloff & Pratt, 2007; Paul & Fitzpatrick, 2015; Setliff, 2014). These traits, which are necessary for the success of online education, tend to receive little attention in the online pedagogical experience (Palloff & Pratt, 2007). Therefore, servant leadership, with its emphasis on many of these behaviors, is positioned to be a valuable leadership style for online faculty members. The use of servant leadership may lead to more satisfied students (Huber, 2014, Nyamboli, 2014; Paul & Fitzpatrick, 2015; Reed & Swanson, 2014; Setliff, 2014; van de Bunt-Kokhius & Sultan, 2012).

Recommendations

Practical recommendations. In terms of practice, the goal of this research was to assist higher educational administrators, faculty members, and other stakeholders seeking a better understanding of the factors that might contribute to student satisfaction in a virtual learning environment. By understanding these factors, university managers, instructors, and other stakeholders may be able to design effective servant-leadership trainings. Such trainings may foster leadership qualities that can improve online-student satisfaction and thereby improve student persistence (Croxton, 2014; Kranzow, 2013).

In the current study, an examination of servant leadership at the individual level has provided an opportunity to consider key individual characteristics of servant leadership. Therefore, based on the findings of this research, a model for online faculty training in servant leadership is suggested. This model is based on servant leadership behaviors (Barbuto & Wheeler, 2006) and is adapted from Setliff's (2014) *Servant Leader Development Model for Faculty by Antecedent*. These constructs include the

following characteristics of servant leadership: altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship. The suggested practical model for online faculty training, based on these five constructs, is presented.

Altruistic calling. The servant leadership behavior of altruistic calling should focus on the willingness of the online instructors to place the interests of the online students ahead of their own to ensure student satisfaction (Setliff, 2014). For example, online instructors can provide many opportunities for interaction with their online students using discussion boards or other communication means available in the LMS. These interactions would be designed to ensure that the students understand the course material. By sacrificing resources such as time and energy, instructors can demonstrate that they care about the wellbeing of their students, and the result is satisfied students.

Wisdom. A previous quantitative study of the relationship between servant-leadership behavioral qualities and exemplary instructions (Setliff, 2014) showed that wisdom was associated with exemplary or outstanding instructors. These findings, along with the results of the current study, suggest that instructors who desire to enhance their teaching skills and have more satisfied students should consider applying servant leadership qualities such as wisdom (Huber, 2014; Jacobs, 2011; Nyamboli, 2014; Paul & Fitzpatrick, 2015; Setliff, 2014). Wisdom is demonstrated when online instructors create and take advantage of teachable moments, build a conducive online learning milieu, are aware of the students' backgrounds and learning abilities, have clearly stated the objectives of each day's material and how it relates to past learned content, are able to use various teaching methods to meet the various learning styles of the students; and

invite outside experts to shed more light on the subject matter discussed in the online classroom (Setliff, 2014). It is recommended that online instructors learn these skills so that students may be more satisfied with their online learning experience.

Persuasive mapping. By taking the time needed to listen to students, servant teachers can know what matters most to their students and why. It is therefore recommended that teachers seek to understand the students' motivation, attitudes, and beliefs. Such teachers gain the right to be understood and can persuade students to change (Hays, 2008; Letizia, 2014; Thompson, 2014). It is recommended that online instructors present convincing reasons as to why students should pay attention to their future, motivate the students to dream big dreams, be able to reason positively, encourage and convince students to become involved, and gain soft and interpersonal skills necessary for the online classroom (Setliff, 2014). When teachers take these actions, then students may be more satisfied with their online learning experiences.

Organizational stewardship. The following action constructs are considered antecedents to organizational stewardship: (a) This person believes that the organization needs to play a moral role in society, (b)this person believes that our organization needs to function as a community, (c) this person sees the organization for its potential to contribute to society, (d) this person encourages me to have a community spirit in the workplace, and (e) this person is preparing the organization to make a positive difference in the future. When these qualities are exhibited, student satisfaction may increase. It is therefore recommended that online instructors perceive the college as an inclusive learning community; realize the importance of the organizational involvement in serving

the community, especially the unprivileged; and train and encourage others to make a positive change in the community (Setliff, 2014). When online instructors assume these behaviors, students may be more satisfied with their online learning experience.

The current study demonstrated that students who perceived servant leadership behaviors such as altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship among their online instructors were more satisfied with their online learning experience. As such, administrators and instructors may use this information and the integrated servant leader development model to maximize student satisfaction with their online learning experience and thus to maximize student achievement (Joo et al., 2011; Kranzow, 2013; Noland & Richards, 2015). The findings from the current research suggest that training in servant leadership may be a way for administrators at institutions of higher learning to develop highly qualified teachers. Such training for online instructors may help them understand and exhibit servant leadership characteristics (Metzcar, 2008; Nyamboli, 2014). As the competition for online students continues to increase (Allan & Seaman, 2016), the servant leadership model may be a way to attract and retain students until they complete their programs (Huber & Carter, 2014; Jacobs, 2011; Noland & Richards, 2015; Paul & Fitzpatrick, 2015). By implementing such training, institutions of higher learning can reap the benefits of increased student satisfaction and retention and thus increase tuition income, which is essential for their survival in a highly competitive online environment (Jacobs, 2011).

Scholarly recommendations. Ten years after its development, the SLQ (Barbuto & Wheeler, 2006) has emerged as one of the leading measures for measuring individual servant leadership behaviors (Setliff, 2014). However, despite the growth of online learning since 2006, no instrument was developed that specifically measured students' perceptions of servant leadership behaviors within an online learning setting. Most research on servant leadership theory in higher education has focused on the traditional classroom setting. There is a need to develop new instruments better suited for the online learning milieu.

The results of this study have confirmed previous research showing that when instructors exhibit servant leadership behaviors in either on-ground, online, or hybrid settings, the result is a positive environment where students' performance is enhanced (Huber, 2014; Jacobs, 2011; Letizia, 2014; Nyamboli, 2014; Padron, 2012; Reed & Swanson, 2014; Searle, 2011; Setliff, 2014; van de bunt-Kokhuis & Sultan, 2013). However, more work is still needed for a further understanding of the factors that contribute to student satisfaction in an online learning setting (Nyamboli, 2014).

Greenleaf (1977), who first introduced the construct of servant leadership, stated, "What I have to say comes from experience, my own and that of others, which bears on institutional reconstruction. It is a personal statement, and it is meant to be neither a scholarly treatise nor a how-to-do-it manual" (p. 49). Since that time, servant leadership has lacked a unified theoretical framework. Little empirical research on servant leadership has been conducted with wide, substantive, and practical applications (Dean, 2014; Fotch & Ponton, 2015; Parris & Peachey, 2013; van Dierendonck, 2011; van

Dierendonck et al., 2014). As such, researchers in this fledgling field of servant leadership theory have ample challenges before them to produce empirical research that will further validate the use of servant leadership across various organizational settings (Noland & Richards, 2015). Such research can provide further insights and understanding of this theory for future researchers and practitioners.

Further research has been recommended that addresses the relationship between online instructors' servant leadership behaviors and online student satisfaction (Huber, 2014, Nyamboli, 2014). The current study has shown that the SLQ can be used in an educational setting, such as a community college. It is recommended that this study be replicated in different settings, such as state universities, private colleges, gradute programs, and for-profit educational institutions. Such research may provide additional data on how servant leadership behaviors are related to student satisfaction with online learning and thus fill the existing gap in the literature for this area of study.

Replicating this study with a larger population, using the leader-rated version of the SLQ rather than the follower-rated version used in this study may provide a different perspective on servant leadership behaviors and their relationship to student satisfaction. Scoring servant leadership behaviors from the perspectives of both instructors and students may provide a better indication of the factors related to online student satisfaction. The current study confirmed earlier findings on servant leadership behaviors in the classroom, but more research in this field is needed. Servant leadership theory stands in need of continual development towards a clearer definition and construct measurement (Noland & Richards, 2015). Finally, qualitative research involving

interviews with students and faculty members may provide additional insights regarding the experiences of students and faculty members with servant leadership behaviors.

Conclusions

The purpose of this quantitative, correlational study was to evaluate the relationship between students' perception of their instructor's servant leadership style and student satisfaction with the online instructor. A combined electronic survey adapted from two prevalidated measures, the SLQ and the SET, was sent to 1,028 online students enrolled in one online class at a community college during the Fall 2015 semester. A total of 155 participants granted informed consent and completed all survey questions necessary to compute the independent and dependent variables.

The current study was the first in which the relationship between individual servant leadership behaviors and online student satisfaction was examined empirically. The results of this study showed that individual servant leadership behaviors (altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship) were positively correlated with student satisfaction. The combined predictive power of three of these behaviors (altruistic calling, wisdom, and persuasive mapping) on student satisfaction was even stronger. These findings provided evidence consistent with the current servant leadership literature, according to which levels of student satisfaction increased when instructors exhibited servant leadership behaviors in traditional, hybrid, or online classroom settings (Ali & Ahmad, 2011; Jacobs, 2011; Huber, 2014; Paul & Fitzpatrick, 2015; Setliff, 2014). In addition, servant leadership behaviors were positively correlated with other related outcomes, such as exemplary instruction (Setliff,

2014), teaching effectiveness (Drury, 2005; Metzcar, 2008), school climate (Black, 2010), and job satisfaction (Shaw & Newton, 2014; van Dierendock & Nuijten, 2011).

Online learning is distinguished from other traditional learning modalities in that the restraints of a set time and a set place do not affect online learning (Setliff, 2014). However, other researchers have failed to establish an association between perceived servant leadership and student satisfaction when conducted in online-learning settings (Nayamboli, 2014) or face-to-face classroom settings (Padron, 2012). Servant leadership was also not correlated with effective teaching (Jacobs, 2011). However, all these researchers measured servant leadership at the organizational level rather than at the level of the individual leader.

On the basis of the findings of the current study, a servant leadership-training model was recommended for use to prepare online instructors. This model, adapted from Setliff (2014), could be used to train online faculty members to develop their servant leadership behavior skills as a way of increasing student satisfaction with online learning. Furthermore, this study has empirically demonstrated the correlation of the individual servant leadership behaviors in the online classroom to student satisfaction. As such, it is recommended that servant leadership be an option for inclusion in faculty and staff training, curriculum development, and instructional environments, with a particular focus on the servant leadership behaviors of altruistic calling, persuasive mapping, and wisdom (Noland & Richards, 2015; Paul & Fitzpatrick, 2015; Setliff, 2014). Such training in servant leadership may be an answer to the quest for a new type of leadership in higher

education required to meet the needs and the challenges faced by online learners (Huber, 2014; Nyamboli, 2014; van de Bunt-Kokhius & Sultan, 2012).

Servant teachers aim to help students maximize their personal potential by focusing primarily on the students' needs (Noland & Richards, 2015). This new type of compassionate leadership can juxtapose digital technology and human feeling in the online learning classroom (van de Bunt-Kokhius & Sultan, 2012). Further studies are recommended to examine and expand the findings of this research in different settings, such as private colleges, state universities, and for-profit institutions.

References

- Abdous, M., & Yen, C.J. (2010). A predictive study of learner satisfaction and outcomes in face-to-face, satellite broadcast, and live video-streaming learning environments. *Internet and Higher Education*, *13*(2010), 248-257. http://dx.doi.org/10.1016/j.iheduc .2010.04.005
- Agbetsiafa, D. (2010). Evaluating effective teaching in college level economics using student ratings of instruction: A factor analytic approach. *Journal of College Teaching & Learning*, 7(5), 57-66.
- Allen, M., Omori, K., Burrell, N., Mabry, E., & Timmerman, E. (2013). Satisfaction with distance education. In Moore, M. (Ed.), *Handbook of distance education (3rd ed.)*, (143-154). New York, NY: Routledge
- Allen, I. E., Seaman, J., & Consortium, S. (2011). *Going the distance: Online education in the Unites States*, 2011. Sloan Consortium. Retrieved from http://www.onlinelearningsurvey.com/reports/goingthedistance.pdf
- Allen, I. E., & Seaman, J. (2013). *Changing course: Ten years of tracking online education in the United States*. Retrieved form Babson Survey Research Group and Quahog Research Group website: http://www.onlinelearningsurvey.com/reports/changingcourse.pdf
- Allen, I. E., & Seaman, J. (2014). *Grade change: Tracking Online Learning in the United States*. Retrieved form Babson Survey Research Group and Quahog Research Group website: http://www.onlinelearningsurvey.com/reports/gradechange.pdf
- Allen, I. E., & Seaman, J. (2016). *Online report card: Tracking Online Learning in the United States*. Retrieved form Babson Survey Research Group and Quahog Research Group website: http://onlinelearningsurvey.com/reports/onlinereportcard.pdf
- Ali, A., & Ahmad, I. (2011). Key factors for determining students' satisfaction in distance learning courses: A study of allama iqbal open university. *Contemporary Educational Technology*, 2(2), 118-134.
- Ali, R., & Leeds, E. (2009). The impact of face-to-face orientation on online student retention: A pilot study. *Online Journal of Distance Learning Administration*, 12(4). Retrieved from http://www.westga.edu/~distance/ojdla/winter124/ali124.html
- Allio, R. (2013). Leaders and leadership many theories, but what advice is reliable? *Strategy & Leadership*, 41, 4-14. doi:10.1108/10878571311290016

- Alshare, K. A., Freeze, R. D., Lane, P. L., & Wen, H. J. (2011). The impacts of system and human factors on online learning systems use and learner satisfaction. *Decision Sciences: Journal of Innovative Education*, 9, 437-461. http://dx.doi.org/10.1111/j.1540-4609.2011.00321.x
- Alteparmakian, T. (2010). *Team characteristics and leadership behavior in online classes* (Order No. 3415664). Available from ProQuest Dissertations & Theses Full Text; ProQuest Education Journals. (718141250). Retrieved from http://search.proquest.com.proxy1 .ncu.edu/docview/718141250/599287B18C54185PQ/1?accountid=28180#
- Amirault, R. a. (2012). Distance learning in the 21st century university key issues for leaders and faculty. *Quarterly Review Of Distance Education*, 13(4), 253-265.
- Andenoro, A. C. (2013). The inaugural national leadership education research agenda: a new direction for the field. *Journal Of Leadership Education*, *12*(1), 1-8.
- Asunka, S. (2012). Identifying and addressing cultural barriers to faculty adoption and use of a learning management system in a Ghanaian university: A participatory action research approach. *International Journal Of Web-Based Learning And Teaching Technologies*, 7(4), 13-28.
- Avolio. B., Walumba, F. & Weber, T.J. (2009). Leadership: Current theories and research and future directions. Retrieved from http://digitalcommons.unl.edu/cgi/viewcontent.cgi? article=1036&context=managementfacpub
- Babakus, E., Yavas, U., & Ashill, N. J. (2011). Service worker burnout and turnover intentions: Roles of person-job fit, servant leadership, and customer orientation. *Services Marketing Quarterly*, 32(1), 17-31. doi:10.1080/15332969.2011.533091
- Balthazard, P.A., Waldman, D.A., & Warren, J.E. (2009). Predictors of the emergence of transformational leadership in virtual decision teams. *The Leadership Quarterly*, 20, 651-663. doi: 10.1016/j.leaqua.2009.06.008
- Balwant, P. T., Birdi, K., & Stephan, U. (2014). Practice what you preach: instructors as transformational leaders in higher education classrooms. *Academy of Management Annual Meeting Proceedings*, 1685-1690. doi:10.5465/ambpp.2014.57
- Baraldi, A. N., & Enders, C. K. (2010). An introduction to modern missing data analyses. *Journal Of School Psychology*, 48(1), 5-37. doi:10.1016/j.jsp.2009.10.001

- Barbuto, J. E., & Wheeler, D. W. (2006). Scale development and construct clarification of servant leadership. *Group & Organization Management*, 31(3), 300–26
- Barnabas, A., Joseph, A., & Clifford, P. (2010). The need for awareness of servant leadership in business schools. *Academic Leadership* (15337812), 8(2), 1-6.
- Bech, M. and M.B. Kristensen. 2009. Differential response rates in postal and web-based surveys among older respondents. *Survey Research Methods 3*(1): 1–6.
- Beck, C. D. (2014). Antecedents of servant leadership: A mixed methods study. *Journal Of Leadership & Organizational Studies*, 21(3), 299-314. doi:10.1177/1548051814529993
- Berry, T. (2014). The Relationship between Servant-Leadership, Job Satisfaction, and Organizational Commitment for Virtual Employees. (3665456 Ph.D.), Northcentral University, Ann Arbor. Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/1640913318?accountid=28180
- Berry, W. D. (1993). *Understanding regression assumptions*. Thousand Oaks, CA, US: Sage Publications, Inc.
- Bishara, A. J., & Hittner, J. B. (2012). Testing the significance of a correlation with nonnormal data: Comparison of Pearson, Spearman, transformation, and resampling approaches. *Psychological Methods*, *17*(3), 399-417. doi:10.1037/a0028087
- Black, G. (2010). Correlational analysis of servant leadership and school climate. *Catholic Education: A Journal of Inquiry & Practice, 13*(4), 437-466.
- Black, P., & William, D. (2010). "Kappan classic": Inside the black box—Raising standards through classroom assessment. *Phi Delta Kappan*, 92(1), 81-90.
- Bogler, R., Caspi, A., & Roccas, S. (2013). Transformational and passive leadership: An initial investigation of university instructors as leaders in a virtual learning environment. *Educational Management Administration & Leadership*, 41(3), 372-392. doi:10.1177/1741143212474805
- Bolkan, S., & Goodboy, A. K. (2011). Behavioral Indicators of Transformational Leadership in the College Classroom. *Qualitative Research Reports In Communication*, 12(1), 10-18. doi:10.1080/17459435.2011.601520

- Bolkan, J. (2013). Report: Students taking online courses jumps 96 percent over 5 years. *Campus Technology*. Retrieved from http://campustechnology.com/articles/2013/06/24/report-students-taking-online-courses-jumps-96-percent-over-5-years.aspx
- Bolliger, D. U., & Halupa, C. (2012). Student perceptions of satisfaction and anxiety in an online doctoral program. *Distance Education*, *3*(3), 81-98. http://dx.doi.org/10.1080/01587919.2012.667961
- Bolliger, D. U., & Erichsen, E.A. (2013). Student satisfaction with blended and online courses based on personality type. *Canadian Journal of Learning & Technology*, 39(1), 1-23.
- Borrego, M., Douglas, E., & Amelink, C. (2009). Quantitative, qualitative, and mixed research methods in engineering education. *Journal of Engineering Education*, 98(1), 53-66.
- Bowen, W.G. (2013). Walk deliberately, don't run, toward online education. *The Chronicle of Higher Education*. Retrieved from http://chronicle.com/article/Walk-Deliberately-Dont-Run/138109/
- Buchen, I. H. (1998). Servant leadership: A model for future faculty and future institutions. *The Journal of Leadership Studies*, *5*(1), 125-134.
- Buford, M. A. (2012). *The controlled discipline of servant leaders: A qualitative study* (Order No. 3515406). Available from ProQuest Dissertations & Theses Full Text. (1022632111). Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/1022632111?accountid=28180
- Cater, J. J., Michel, N., & Varela, O. E. (2012). Challenges of online learning in management education: An empirical study. *Journal of Applied Management and Entrepreneurship*, 17(4), 76-96. Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/1114670307/fulltextPDF/F33E4526065C4C2DPQ/1?accountid=28180
- Cerit, Y. (2010). The effects of servant leadership on teachers' organizational commitment in primary schools in Turkey. *International Journal of Leadership in Education*, 75(3), 301-317. doi:10.1080/13603124.2010.496933
- Chang, L., & Krosnick, J. A. (2010). Comparing oral interviewing with self-administered computerized questionnaires: An experiment. *Public Opinion Quarterly*, 74(1), 154-167.
- Chau, P. (2010). Online higher education commodity. *Journal of Computing in Higher Education*, 22(3): 177-191.

- Chen, P., & Chih, J. (2011). The relations between learner motivation and satisfaction with management training: An empirical study in Taiwan. *International Journal of Management*, 28(1), 77-90,198. Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/853332558/ fulltextPDF/B2F3584A1A964BD5PQ/1?accountid=28180#
- Cleveland-Innes, M. (2013). Editorial -- Leadership in open and distance learning notes. *International Review of Research in Open & Distance Learning*. p. 284.
- Cole, M. T., Shelley, D. J., & Swartz, L. B. (2014). Online instruction, e-learning, and student satisfaction: A three year study. *International Review Of Research In Open & Distance Learning*, 15(6), 111-131.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Covey, S. R. (1998). Foreword. In L. C. Spears (Ed.), *Insights on leadership: Service, stewardship, spirit, and servant-leadership* (21-28). New York: John Wiley & Sons.
- Crawford-Ferre, H., & Wiest, L. R. (2012). Effective online instruction in higher education. *Quarterly Review of Distance Education*, *13*, 11-14. Retrieved from http://www.infoagepub.com/quarterly-review-of-distance-education.html
- Creswell, J. W. (2009). *Research design* (3rd ed.). Thousand Oaks, CA: SAGE Publication.
- Creswell, J. W. (2014). *Research design* (4th ed.). Thousand Oaks, CA: SAGE Publication.
- Crippen, C. (2010). Serve, teach, and lead: It's all about relationships. *InSight: A Journal of Scholarly Teaching*, 527-36.
- Croxton, R. A. (2014). The role of interactivity in student satisfaction and persistence in online learning. *Journal Of Online Learning & Teaching*, 10(2), 314-324.
- Daft, R. L. (2010). *Management*. Mason, Ohio: Thomson-Southwestern.
- Dallal G. E. (2012). What do the coefficients in a multiple linear regression mean? Retrieved from http://www.jerrydallal.com/lhsp/regcoef.htm
- Dearth, J., & West, G. B. (2014). The use of servant leadership in the United Methodist church. *Interdisciplinary Journal of Research on Religion*. Retrieved form http://www.religiournal.com/pdf/ijrr10005.pdf

- Dean, D. R. (2014). Servant leadership for higher education: Principles and practices. *Review of Higher Education*, *37*(2), 274-277. Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/1465556898/fulltextPDF/668 786A376864C35PQ/79?accountid=28180
- Dennis, R. S., & Bocarnea, M. 2005. Development of the servant leadership assessment instrument. *Leadership and Organization Development Journal*, 26: 600-615
- Deulen, A. A. (2013). Social constructivism and online learning environments: Toward a theological model for Christian educators. *Christian Education Journal*, *10*(1), 90-98. Retrieved from http://mmljournalfeed.wordpress.com/2013/04/09/christian-education-journal-vol- 10-no-1/
- Dewan, S., & Dewan, D. (2010). Distance education teacher as a leader: Learning from the path goal leadership theory. *Journal of Online Learning and Teaching*, 6(3), 673. Retrieved from http://search.proquest.com.proxy1.ncu.edu /docview/1497198311?accountid=28180
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2009). *Internet, mail, and mixed-mode surveys: The tailored design method*. Hoboken, NJ: Wiley.
- Dixon, D. L. (2013). *Relationships among servant leadership, organizational citizenship behavior, and school climate in Alabama high schools* (Order No. 3612079). Available from ProQuest Dissertations & Theses Full Text. (1505373528). Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/1505373528/56E9D087 71924AA5PQ/1?accountid=28180
- Dykman, C. A. & Davis, C. K. (2008). Part one the shift toward online education. *Journal of Information Systems Education*, 19(1), 11-16. Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/200154588 /fulltextPDF/1405F5DE65E6EB4386/3?accountid=28180
- Dziuban, C., Moskal, P., Kramer, L., & Thompson, J. (2013). Student satisfaction with online learning in the presence of ambivalence: Looking for the will-o'-the-wisp. *The Internet and Higher Education*, *17*1-8. doi:10.1016/j.iheduc. 2012.08.001
- Espasa, A., & Meneses, J. (2010). Analyzing feedback processes in an online teaching and learning environment: An exploratory study. *Higher Education*, 59(3), 277-292. doi:10.1007/s10734-009-9247-4
- Falloon, G. (2011). Making the connection: Moore's theory of transactional distance and its relevance to the use of a virtual classroom in postgraduate online teacher education. *Journal of Research on Technology in Education*, 43, 187-209. Retrieved from http://www.iste.org/learn/publications/journals/jrte

- Fardinpour, A., Pedram, M. M., & Burkle, M. (2014). Intelligent Learning Management Systems: Definition, Features and Measurement of Intelligence. *International Journal Of Distance Education Technologies*, *12*(4), 19-31. doi:10.4018/ijdet.2014100102
- Farling, M. L., Stone, A. G., & Winston, B. E. (1999). Servant leadership: Setting the stage for empirical research. *Journal of Leadership Studies*, 6, 49-72.
- Faul, F., Erdfelder, E., Lang, & Buchner, A. (2012). G*Power 3.1.5: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavioral Research Methods*, 41, 1149--1160.
- Finley, S. (2012). Servant leadership: a literature review. *Review Of Management Innovation & Creativity*, 5(14), 135-144.
- Focht, A. & Ponton, M. (2015). Identifying primary characteristics of Servant leadership: Delphi study. *International Journal of Leadership Studies*. Retrieved from http://www.regent.edu/acad/global/publications/ijls/new/vol9iss1/ 1-IJLS.pdf
- Fransworth, K. A. (2007). *Leadership as service: A new model for higher education in a new century.* Westport, CT: ACE-Praeger.
- Friedman, H. & Friedman, L. (2011). Crises in education: Online learning as a solution. *Creative Education*, 2,156-163. doi: 10.4236/ce.2011.23022.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction*. Boston: Pearson.
- Garcia, I. (2015). Emergent leadership: Is e-leadership importance in the quality of virtual education? (liderazgos emergentes: ¿es importante el e-liderazgo en la calidad de la educación virtual?). *Revista Iberoamericana De Educación a Distancia, 18*(1), 25-44. Retrieved from http://search.proquest.com.proxy1. ncu.edu/docview/1649109292/fulltextPDF/AEBC2C0DAB544195PQ/1?accounti d=28180
- Garii, B., & Naomi, J. P. (2006). Noncore faculty members' roles: Expectations and system stress. *The Educational Forum*, 70(3), 215-221. Retrieved from http://search.proquest.com.proxy1.ncu.edu/_docview/220692639 /fulltextPDF/140B81072F8608D297B/1?accountid=28180
- Georgouli, K., Skalkidis, I., & Guerreiro, P. (2008). A framework for adopting LMS to introduce e-learning in a traditional course. *Journal of Educational Technology & Society*, 11(2), 227-240.

- Gill, A., Tibrewala, R., Poczter, A., Biger, N., Mand, H. S., Sharma, S. P., & Dhande, K. S. (2010). Effects of transformational leadership on student educational satisfaction and student stress. *The Open Education Journal*, *3*, 1-9.
- Goncalves, M. (2013). Leadership styles: The power to influence others. *International Journal of Business and Social Science*, 4, 1-3. Retrieved from http://www.ijbssnet.com
- Greasley, P. E. & Bocârnea, M. C. (2014). The relationship between personality type and the servant leadership characteristic of empowerment. *Procedia Social and Behavioral Sciences*, 124, 11-19. http://dx.doi.org/10.1016/j.sbspro.2014.02.454
- Green, K.(2012). The 2014 Campus Computing Survey. *Department Chair*, 23(4), 18-19. doi:10.1002/dch
- Green, K. (2014). *The 2014 Campus computing survey: The campus computing project*. Retrieved from http://www.campuscomputing.net/item/campus-computing-2014
- Greenleaf, R. K. (1977). Servant leadership: A journey into the nature of legitimate power and greatness. New York: Paulist Press.
- Greenleaf, R. K. (1978). *The servant leader*. Westfield, IN: Greenleaf Center for Servant Leadership
- Greenleaf, R.K. (1982). Teacher as servant: A Parable. NJ: Paulist.
- Greenleaf, R. K. (1991). *The servant as leader*. Indianapolis, IN: The Robert K. Greenleaf Center.
- Gomez, D. (2013). Leadership behavior and its impact on student success and retention in online graduate education. *Academy of Educational Leadership Journal*, *17*(2), 13-37. Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview /1368612995?accountid=28180
- Guillaume, O., Honeycutt, A., & Savage-Austin, A. R. (2013). The impact of servant leadership on job satisfaction. *Journal of Business and Economics*, 4(5), 444-448.
- Gülbahar, Y., & Madran, R. (2009). Communication and collaboration, satisfaction, equity, and autonomy in blended learning environments: A case from Turkey. *International Review of Research in Open & Distance Learning*, 10(2), 1-22.

- Gunawardena, C. N., Linder-VanBerschot, J. A., LaPointe, D. K., & Rao, L. (2010). Predictors of learner satisfaction and transfer of learning in a corporate online education program. *The American Journal of Distance Education*, 24, 207-226. http://dx.doi.org/10.1080/08923651.2010.522919
- Gunawardena, C. N., Linder-VanBerschot, J. A., LaPointe, D. K., & Rao, L. (2010). Predictors of learner satisfaction and transfer of learning in a corporate online education program. *American Journal of Distance Education*, 24(4), 207-226. doi:10.1080/08923647.2010.522919
- Hannay, M., Kitahara, R., & Fretwell, C. (2010). Student-focused strategies for the modern classroom. *Journal of Instructional Pedagogies*, 2, 1-16. Retrieved from http://search proquest.com.proxy1.ncu.edu/docview/759646884/fulltextPDF /311ECAC303064AECPQ/1?accountid=28180#
- Hesse, H. (1956). *The journey to the east* (H. Rosner, Trans.). Retrieved from http://api.ning.com/files/YijHkktwzjCuqzMpXzDDz7q0kM2QkZSHdF hY9SXShHMUBCXxQLHbvtCtXVKmuqwsI5bqDz4hSfsqLTKipy2IYrCcbLQR Y2qX/TheJourneytotheEastHermannHesse.pdf
- Hajjaj, K. G. (2014). Relationship between servant leadership style and intent to stay among the employees in the municipality of Gaza. *International Journal of Business and Social Science*, 5(7) Retrieved from http://search.proquest.com. proxy1.ncu.edu/docview/1548891031?accountid=28180
- Hameed, A., & Amjad, S. (2011). Students' satisfaction in higher learning institutions: A case study of COMSATS abbottabad, Pakistan. *Iranian Journal of Management Studies*, 4(1), 63-77. Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/899327311/ fulltextPDF/13EA484134E4DA45A2D/1?accountid=28180
- Hart, C. (2012). Factors associated with student persistence in an online program of study: A review of the literature. *Journal Of Interactive Online Learning*, 11(1), 19-42.
- Hassan, Z., Yau, A. (2013). Transformational leadership practices and student satisfaction in an educational setting in Malaysia. *International Journal of Accounting, and Business Management 1*(1), 102-111
- Hays, J. M. (2008). Teacher as servant applications of greenleaf's servant leadership in higher education. *Journal of Global Business Issues*, 2(1), 113-134. Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/223742403/fulltextPDF/13EA422C4002088774C/1?accountid=28180

- Hazel, M., Crandall, H. M., & Caputo, J. S. (2014). The influence of instructor social presence and student academic entitlement on teacher misbehaviors in online courses. *Southern Communication Journal*, 79(4), 311-326. doi:10.1080/1041794X.2014.914563
- Heinz, M., Martin, P., Doll, G., & Pearson-Scott, J. (2015). The delivery of distance education—Is it time for doctoral programs in gerontology?. *Gerontology & Geriatrics Education*, *36*(4), 343-364. doi:10.1080/02701960.2014.925887
- Hill, T. & Lewicki, P. (2007). Statistics: Methods and applications. StatSoft, Tulsa, OK.
- Hirschy, M. J., Gomez, D., Patterson, K., & Winston, B. E. (2014). Servant leadership, humane orientation, and confucian doctrine of jen. *Academy of Strategic Management Journal*, *13*(1), 97-111.
- Huang, Y., & Chang, Z. (2012). Higher education leadership and digital language learning environments in Taiwan. *Journal of Accounting, Finance & Management Strategy*, 7(2), 71-92. Retrieved from http://search.proquest.com.proxy1 .ncu.edu/docview/1349228038/fulltextPDF/1402C172A4A665CA10D/15?accountid=28180
- Huber, R. L. (2014). Servant leadership, self-efficacy, and communities of inquiry in higher education online learning (Order No. 3623182). Available from ProQuest Dissertations & Theses Full Text. (1548333568). Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/1548333568/58B40E1F1D84 EC1PQ/6?accountid=28180#
- Huber, R. & Carter, H. (2014). Applying the servant leadership model to e-teaching. In T. Bastiaens (Ed.), *Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2014* (pp. 880-887). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).
- Hunter, E. M., Neubert, M. J., Perry, S. J., Witt, L. A., Penney, L. M., & Weinberger, E. (2013). Servant leaders inspire servant followers: Antecedents and outcomes for employees and the organization. *The Leadership Quarterly*, 24(2), 316-331. doi:10.1016/j.leaqua.2012.12.001
- Hussain, I. (2013). A Study of Learners' Reflection on Andragogical Skills of Distance Education Tutors. *International Journal of Instruction*, 6(1), 123-138.

- Irving, J. A. (August, 2004). Servant leadership and the effectiveness of teams: Findings and implications. Servant Leadership Research Roundtable, School of Leadership Studies at Regent University. Retrieved fromhttp://www.regent.edu/acad/global/publications/sl_proceedings/home.shtml
- Irving, J. A. (2005). Servant leadership and the effectiveness of teams (Order No. 3173207). Available from ABI/INFORM Global; ProQuest Dissertations & Theses Full Text. (305356267). Retrieved from http://search.proquest.com. proxy1.ncu.edu/docview /305356267/2D8ECD30D1D643C7PQ/1?accountid=28180#
- Irving, J. A. (2010). Cross-cultural perspectives on servant leadership. In D. van Dierendonck and K. Patterson (Eds.), *Servant leadership: Developments in theory and research* (118-129). New York: Palgrave Macmillan.
- Jaccard, J., & Daniloski, K. (2012). Analysis of variance and the general linear model. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, K. J. Sher, ... K. J. Sher (Eds.), APA handbook of research methods in psychology, Vol 3: Data analysis and research publication (163-190). Washington, DC, US: American Psychological Association. doi:10.1037/13621-008
- Jackson, S.L. (2016). Research Methods and statistics: A critical thinking approach. Boston: Cengage Learning.
- Jacobs, K. (2011). Assessing the relationship between servant leadership and effective teaching in a private university setting. (Doctoral dissertation, Northcentral University). Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/908959989/13EA3653420 4B917C7F/1?accountid=28180
- Jameson, J. (2013). e- Leadership in higher education: The fifth 'age' of educational technology research. *British Journal Of Educational Technology*, 44(6), 889-915. doi:10.1111/bjet.12103
- Jones, D. (2012). Does servant leadership lead to greater customer focus and employee satisfaction? *Business Studies Journal*, 4(2), 21-35.
- Johnson, S.S., Aragon, S. R., & Shaik, N. (2000). Comparative analysis of learner satisfaction and learner outcome in online and face-to-face learning environments. *Journal of Interactive Learning Research*, 11 (1), 29-49.
- Joo, Y., Joung, S., & Kim, J. (2013). Structural Relationships among E-learners' Sense of Presence, Usage, Flow, Satisfaction, and Persistence. *Journal Of Educational Technology & Society*, 16(2), 310-324.

- Johannesen, M. m. (2013). The role of virtual learning environments in a primary school context: An analysis of inscription of assessment practices. *British Journal Of Educational Technology*, 44(2), 302-313.
- Johnson, A. C., & Vishwanath, K. R. (2011). Servant professorship and its implications. *International Journal of Education Research*, 6(1), 135-146.
- Jones, B. M., Everard, A., & McCoy, S. (2011). Distance education at the graduate level: A viable alternative. *Contemporary Issues in Education Research (Online)*, 4(11), 9. Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview /1418443722/E5A68BFEDA524F59PQ/1?accountid=28180#
- Joo, Y. J., Lim, K. Y., & Kim, E. K. (2011). Online university students' satisfaction and persistence: Examining perceived level of presence, usefulness and ease of use as predictors in a structural model. *Computers & Education*, *57*, 1654-1664. http://dx.doi.org/10.1016/j.compedu.2011.02.008
- June, L., Seo Young, Y., & Chung Hyun, L. (2013). Exploring online learning at primary schools: students' perspectives on cyber home learning system through video conferencing (CHLS-VC). *Turkish Online Journal Of Educational Technology*, 12(1), 68-76.
- Karanja, E., Zaveri, J., & Ahmed, A. (2013). How do MIS researchers handle missing data in survey-based research: A content analysis approach. *International Journal Of Information Management*, 33(5), 734-751. doi:10.1016/j.ijinfomgt.2013.05.002
- Kear, K., Chetwynd, F., Williams, J., & Donelan, H. (2012). Web conferencing for synchronous online tutorials: Perspectives of tutors using a new medium. *Computers & Education*, 58, 953-963. http://dx.doi.org/10.1016/j.compedu. 2011.10.015
- Kegelman, N. M. (2011). Online courses at a community college: A study of student characteristics (Order No. 3490365). Available from ProQuest Dissertations & Theses Full Text; ProQuest Education Journals. (917689456). Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/917689456/DEFF19C7EBE9 47B8PQ/1?accountid=28180
- Komarraju, M., Swanson, J., & Nadler, D. (2014). Increased career self-efficacy predicts college students' motivation, and course and major satisfaction. *Journal Of Career Assessment*, 22(3), 420-432. doi:10.1177/1069072713498484

- Kozub, R. M. (2010). An ANOVA analysis of the relationships between business students' learning styles and effectiveness of web based instruction. *American Journal of Business Education*, *3*(3), 89-98. Retrieved from http://journals.cluteonline.com/index.php/AJBE
- Kranzow, J. (2013). Faculty leadership in online education: Structuring courses to impact student satisfaction and persistence. *Journal Of Online Learning & Teaching*, 9(1), 131-139.
- Kuo, Y., Walker, A. E., Belland, B. R., & Schroder, K. E. (2013). A Predictive study of student satisfaction in online education programs. *International Review Of Research In Open & Distance Learning*, 14(1), 16-39.
- Kuo, Y., Walker, A. E., Schroder, K. E., & Belland, B. R. (2014). Interaction, internet self-efficacy, and self-regulated learning as predictors of student satisfaction in online education courses. *Internet & Higher Education*, 2035-50. doi:10.1016/ j.iheduc.2013.10.001
- Ladyshewsky, R. K. (2013). Instructor Presence in Online Courses and Student Satisfaction. *International Journal For The Scholarship Of Teaching & Learning*, 7(1), 1-23.
- Laub, J. A. (1999). Assessing the servant organization: Development of the servant organizational leadership assessment (SOLA) instrument. (Doctoral dissertation, Florida Atlantic University). Retrieved from http://www.olagroup.com/Images/mmDocument/ Laub% 20Dissertation% 20Complete% 2099.pdf
- Laub, J. A. (2013). *Psychometrics of the organizational assessment instrument*. Retrieved from http://www.olagroup.com/Display.asp?Page=psychometrics
- Lee, J.W. (2010). Online support service quality, online learning acceptance, and student satisfaction. *Internet and Higher Education*, *13*, 277-283. http://dx.doi.org/10.1016/j.iheduc.2010.08.002
- Letizia, A. (2014). Radical Servant Leadership: A New Practice of Public Education Leadership in the Post-Industrial Age. *Journal for Critical Education Policy Studies (JCEPS)*, 12(2), 175-199.
- Liden, R. C., Wayne, S. J., Zhao, H., & Henderson, D. (2008). Servant leadership: Development of a multidimensional measure and multi-level assessment. *The Leadership Quarterly*, 19(2), 161-177. doi:10.1016/j.leaqua.2008.01.006

- Liden, R. C., Wayne, S. J., Meuser, J. D., Hu, J., Wu, J., & Liao, C. (2015). Servant leadership: Validation of a short form of the SL-28. *The Leadership Quarterly*, 26(2), 254-269. doi:10.1016/j.leaqua.2014.12.002
- Livingston, R. K. (2011). *An investigation of transformational leadership in a virtual learning environment*. (Doctoral dissertation, Capella University). Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/839860506/58723CE61CD94 853PQ/1?accountid=28180#
- Lom, B. (2012). Classroom Activities: Simple Strategies to Incorporate Student-Centered Activities within Undergraduate Science Lectures. *Journal Of Undergraduate Neuroscience Education: JUNE: A Publication Of FUN, Faculty For Undergraduate Neuroscience*, 11(1), A64-A71.
- Lorenzo, G. (2012). A research review about online learning: Are students satisfied? Why do some succeed and others fail? What contributes to higher retention rates and positive learning outcomes? *Internet Learning*, *I*(1), Fall 2012.
- Lu, N., Han, Y., Chen, T., Gunzler, D. D., Xia, Y., Lin, J. Y., & Tu, X. M. (2013). Power analysis for cross-sectional and longitudinal study designs. *Shanghai Archives of Psychiatry*, 25(4), 259–262. http://doi.org/10.3969/j.issn.1002-0829.2013.04.009
- Lwoga, E. T. (2014). Critical success factors for adoption of web-based learning management systems in tanzania. *International Journal of Education and Development using Information and Communication Technology*, 10(1), 4-21. Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/ 1533430248/fulltextPDF/BADDE9374BDB4B9EPQ/1?accountid=28180#
- Mariano, D. G. (2013). The effectiveness of creating a sense of community in online learning with social awareness information. (73), ProQuest Information & Learning, US. Retrieved from http://proxy1.ncu.edu/login?url= http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2013-99030-211&site=ehost-live
- Mark, E. (2013). Student satisfaction and the customer focus in higher education. *Journal Of Higher Education Policy & Management*, 35(1), 2-10. doi:10.1080/1360080X.2012.727703
- Marx, G. (2011). Student and instructor perceptions of care in online graduate education: a mixed methods case study. (Doctoral dissertation, Wichita State University). Retrieved from http://soar.wichita.edu/bitstream/handle/10057/3932/d11009_%20Marx.pdf? sequence=1

- McGill, T. J., & Klobas, J. E. (2009). A task–technology fit view of learning management system impact. *Computers & Education*, 52(2), 496-508. doi:10.1016/j.compedu.2008.10.002
- McGlone, J. R. (2011). Adult learning styles and on-line educational preference. *Research in Higher Education Journal*, 12, 1-9. Retrieved from http://www.aabri.com/rhej.html
- Messer, B. L., & Dillman, D. A. (2011). Surveying the general public over the internet using address-based sampling and mail contact procedures. *Public Opinion Quarterly*, 75(3), 429-457. doi:10.1093/poq/nfr021
- Metzcar, A. (2008). Servant leadership and effective classroom teaching. Ed.D. dissertation, Indiana Wesleyan University, United States -- Indiana. Retrieved from Dissertations & Theses: Full Text. (Publication No. AAT 3344705)
- Montgomery, D. C., Peck, E. A., & Vining, G. G. (2012). *Introduction to linear regression analysis* (Vol. 821). John Wiley & Sons.
- Moore, M. G & Kearsley, G. (2012). *Distance education: A systems view of online learning*. Belmont, CA: Wadsworth, Cengage Learning.
- Morris, L. V., Wu, S., Finnegan, C. L. (2005). Predicting retention in online general education courses. *American Journal of Distance Education*, 19(1), 23.
- Morris, L. V., & Finnegan, C. L. (2009). Best practices in predicting and encouraging student persistence and achievement online. *Journal of College Student Retention*, 10(1), 55-64. Retrieved from http://search.proquest.com.proxy1. ncu.edu/docview/196731707/1413CAC1AC52E160EF7/40?accountid=28180
- Morrow, J., & Ackermann, M. E. (2012). Intention to persist and retention of first-year students: The importance of motivation and sense of belonging. *College Student Journal*, 46, 483-491. Retrieved from http://www.projectinnovation.com/College_Student_Journal.html
- Nichols, J. D. (2011). *Teachers as servant leaders*. Lanham, MD: Rowman & Littlefield Publishers
- Nimon, K. F., & Oswald, F. L. (2013). Understanding the Results of Multiple Linear Regression: Beyond Standardized Regression Coefficients. *Organizational Research Methods*, *16*(4), 650-674. doi:10.1177/1094428113493929

- Noland, A., & Richards, K. (2015). Servant Teaching: An exploration of teacher servant leadership on student outcomes. *Journal Of The Scholarship Of Teaching & Learning*, 15(6), 16-38. doi:10.14434/josotl.v15i6.13928
- Northouse, P. (2013). *Leadership: Theory and practice* (6th ed). Los Angeles, CA: Sage Publishing.
- Nyamboli, R. N. K. (2014). *Perceptions of organizational servant leadership and doctoral student satisfaction with e-learning* (Order No. 3666806). Available from ProQuest Dissertations & Theses Global. (1641109699). Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/1641109699?accountid=2818 0
- Offir, B., Belazel, R., & Barth, I. (2007). Introverts, extroverts, and achievement in a distance learning environment. *American Journal of Distance Education*, 21(1), 3-19. doi:10.1080/08923640701298613
- Oluyomi, A. (2010). Dimensions of transformational leadership and perceptions of online learning tools. (Order No. 3426440, Walden University). ProQuest Dissertations and Theses, 135. Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/762387321/1405F7105EB74D4A43D/1?accountid=28180
- Oncu, S., & Cakir, H. (2011). Research in online learning environments: Priorities and methodologies. *Computers & Education*, *57*, 1098-1108. http://dx.doi.org/10.1016/j.compedu.2010.12.009
- Osborne, J. J. (2013). Normality of residuals is a continuous variable, and does seem to influence the trustworthiness of confidence intervals: A response to, and appreciation of, Williams, Grajales, and Kurkiewicz (2013). *Practical Assessment, Research & Evaluation*, 18(11/12), 1-9.
- Padron, J. (2012). Higher education leadership: Servant leadership and the effects on student satisfaction. (Doctoral dissertation, Argosy University). Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/1221263941/13EA35E68D26 A10CD54/1?accountid=28180
- Palloff, R. & Pratt, K. (2007). Building online learning communities: Effectives strategies for the virtual classroom. San Francisco, CA: Jossey-Bass.
- Parris, D. L., & Peachey, J. W. (2013). A systematic literature review of servant leadership theory in organizational contexts. *Journal of Business Ethics*, 113(3), 377-393. doi:10.1007/s10551-012-1322-6

- Patterson, K. A. (2003). *Servant leadership: A theoretical model* (Order No. 3082719). Available from ABI/INFORM Global; ProQuest Dissertations & Theses Full Text. (305234239). Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/305234239/ 6DDCA83E28ED4E29PQ/1?accountid=28180#
- Paul, W. K., & Fitzpatrick, C. (2015). Advising as Servant Leadership: Investigating Student Satisfaction. *NACADA Journal*, *35*(2), 28-35. doi:10.12930/NACADA-14-019
- Pekerti, A. A., & Sendjaya, S. (2010). Exploring servant leadership across cultures: Comparative study in Australia and Indonesia. *The International Journal of Human Resource Management*, 21(5), 754–780.
- Petrovčič, A., Petrič, G., & Lozar Manfreda, K. (2016). The effect of email invitation elements on response rate in a web survey within an online community. *Computers In Human Behavior*, 56320-329. doi:10.1016/j.chb.2015.11.025
- Poulin, R. & Straut, T.T. (2015). IPEDS Fall 2013: Higher ed sectors vary greatly in distance ed enrollments. Retrieved from https://wcetblog.wordpress.com/2015/03/05/ipedssectors/.
- Pounder, J. (2014). Quality teaching through transformational classroom leadership. *Quality Assurance In Education: An International Perspective*, 22(3), 273-285. doi:10.1108/QAE-12-2013-0048
- Qasim AlHamad, A., Issa Al Qawasmi, K., & Qasim AlHamad, A. (2014). Key factors in determining students' satisfaction in online learning based on 'web programming' course within Zarqa university. *International Journal of Global Business*, 7(1), 7-14.
- Rachmawati, A. W., & Lantu, D.C. (2014). Servant leadership theory development & measurement. *Procedia Social and Behavioral Sciences*, *115*, 387-393. http://dx.doi.org/10.1016/j.sbspro.2014.02.445
- Reed, L. L., & Swanson, A. (2014). Servant leadership: Innovative leader development in the online classroom and beyond. *Developments in Business Simulation and Experiential Learning*, 41.
- Ren, X. (2010). How to practice servant leadership. *Studies in Literature and Language*, 7(1), 7-10.

- Rey, G. D., & Buchwald, F. (2011). The expertise reversal effect: Cognitive load and motivational explanations. *Journal of Experimental Psychology–Applied*, 17, 33-48. http://dx.doi.org/10.1037/a0022243
- Rovai, A. P., & Downey, J. R. (2010). Why some distance education programs fail while others succeed in a global environment. *Internet & Higher Education*, 13(3), 141-147. doi:10.1016/j.iheduc.2009.07.001
- Rubin, B., Fernandes, R., & Avgerinou, M. D. (2013). The effects of technology on the Community of Inquiry and satisfaction with online courses. *Internet & Higher Education*, 1748-57. doi:10.1016/j.iheduc.2012.09.006
- Russell, R., & Stone, A. (2002). A review of servant leadership attributes: Developing a practical model. *Leadership & Organization Development Journal*, 23(3/4), 145-157.
- Schützenmeister, A., Jensen, U., & Piepho, H. (2012). Checking Normality and Homoscedasticity in the General Linear Model Using Diagnostic Plots. *Communications In Statistics: Simulation & Computation*, 41(2), 141-154. doi:10.1080/03610918.2011.582560
- Schreiner, L. A., & Nelson, D. D. (2013). The contribution of student satisfaction to persistence. *Journal Of College Student Retention: Research, Theory And Practice*, 15(1), 73-111. doi:10.2190/CS.15.1.f
- Searle, T. P. (2011) Servant leadership, hope, and organizational virtuousness. *Journal of Leadership and Organizational Studies*, 18(1), 107-117. doi: 10.1177/1548051810383863
- Sendjaya, S., & Cooper, B. (2010). Servant leadership behaviour scale: A hierarchical model and test of construct validity. *European Journal of Work and Organizational Psychology*, iFirst article. doi:10.1080/13594321003590549
- Sendjaya, S., Sarros, J. C., & Santora, J. C. (2008). Defining and measuring servant leadership behaviour in organizations. *Journal of Management Studies*, 45:402-424.
- Senge, P. M. (1995). Reflections on leadership. In L.C. Spears (Ed.), *Reflections on leadership: How Robert K. Greenleaf's theory of servant leadership influenced today's top management thinkers* (217-218). New York: Wiley

- Setliff, R. C., Jr. (2014). A study of student perceptions of exemplary instruction and servant leader behavioral qualities (Order No. 3617675). Available from ProQuest Dissertations & Theses Global. (1526012795). Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/1526012795/fulltextPDF/CA 77CCCABEEB48CFPQ/1?accountid=28180#
- Shaw, J., & Newton, J. (2014). Teacher retention and satisfaction with a servant leader as principal. *Education*, 135(1), 101-106.
- Simpson, O. (2013). Student retention in distance education: are we failing our students?. *Open Learning*, 28(2), 105-119. doi:10.1080/02680513.2013.847363
- Smith, D. E., & Mitry, D. J. (2008). Investigation of higher education: The real costs and quality of online programs. *Journal of Education for Business*, 83(1): 147-152.
- Spears, L. (1998). Tracing the growing impact of servant leadership. In L.C. Spears (Ed.), *Insights on leadership: Service, stewardship, spirit, and servant leadership* (1-12). New York: Wiley
- Spears, L. (Ed.). (2005). Who is the servant-leader? The Servant Leader: *The Newsletter of the Robert K. Greenleaf Center for Servant Leadership*, 57, 2.
- Steele, N. (2010). Three characteristics of effective teachers. *Update: Applications of Research in Music Education*, 28(2) 71-78. doi: 10.1177/8755123310361769
- Steffens, N. K., Haslam, S. A., & Reicher, S. D. (2014). Up close and personal: Evidence that shared social identity is a basis for the 'special' relationship that binds followers to leaders. *The Leadership Quarterly*, 25(2), 296-313.
- Stewart, T. (2012). Classroom teacher leadership: service-learning for teacher sense of efficacy and servant leadership development. *School Leadership & Management*, 32(3), 233-259. doi:10.1080/13632434.2012.688741
- Stone, A. G., Russell, R. F., & Patterson, K. (2004). Transformational versus servant leadership: A difference in leader focus. *Leadership & Organization Development Journal*, 25(3), 349-361. Retrieved from http://search.proquest.com.proxy1 .ncu.edu/docview /226919360?accountid=28180
- Stone, D. F. (2012). Measurement Error and the Hot Hand. *American Statistician*, 66(1), 61-66. doi:10.1080/00031305.2012.676467

- Sun, P., Tsai, R. J., Finger, G., Chen, Y., & Yeh, D. (2008). What drives a successful e-Learning? An empirical investigation of the critical factors influencing learner satisfaction. *Computers & Education*, 50(4), 1183-1202. doi:10.1016/ j.compedu.2006.11.007
- Tallent-Runnels, M., Thomas, J. A., Lan, W. Y., Cooper, S., & al, e. (2006). Teaching courses online: A review of the research. *Review of Educational Research*, 76(1), 93-125. Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/214117877/ fulltextPDF/B8F304FA27684EBDPQ/1?accountid=28180
- Teddlie, C., and Tashakkori, A. 2009. *Foundations of mixed methods research*, Thousand Oaks, CA: Sage Publications.
- Thompson, A. (2014). Fostering Growth and Development of Recovering Students in Higher Education Through Servant Leadership. *Peabody Journal of Education* (0161956X), 89(2), 244-257. doi: 10.1080/0161956X.2014.897101
- Thompson, L., Jeffries, M., & Topping, K. (2010). E-mentoring for e-learning development. *Innovations in Education and Teaching International*, 47(3), 305-315.
- Travis, J. E., & Rutherford, G. (2012). Administrative support of faculty preparation and interactivity in online teaching: Factors in student success. *National Forum of Educational Administration & Supervision Journal*, 30, 30-44. Retrieved from http://www.scribd.com/doc/110649809/Administrative-Support-of-Faculty-preparation-and-Interactivity-in-Online-Teaching-Factors-in-Student-Success-by-Dr-Jon-E-Travis-and-Grace-Rutherfo
- Trompenaars, F., & Voerman, E. (2010). Servant-leadership across cultures: Harnessing the strength of the world's most powerful management philosophy. San Francisco, CA: McGraw-Hill
- Tsai, K. C., & Lin, K. (2012). Rethink student evaluation of teaching. *World Journal of Education*, 2(2), 17-n/a. Retrieved from http://search.proquest.com.proxy1. ncu.edu/docview/1030090580/868DA742657844ABPQ/1?accountid=28180
- Udorache, I., Iordache, A. M., & Iordache, M. (2012). The advantages and the disadvantages of e-learning in European Union. *Journal of Information Systems & Operations Management*, 6(2), 1-7. Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/1346772140/fulltextPDF/1403A513965FDADAF7/1?accountid=28180

- Valdiserri, G. A., & Wilson, J. L. (2010). The study of leadership in small business organizations: impact on profitability and organizational success. *Entrepreneurial Executive*, 15, 47-71.
- van de Bunt-Kokhuis, S. & Sultan, N. (2012). Servant-leadership: The online way! elearning where community building is key. *European Journal of Open, Distance and E-Learning, 1*. Retrieved from http://www.eric.ed.gov/PDFS/EJ979595.pdf
- van de Bunt-Kokhuis, S. B., & Weir, D. (2013). Serving culturally diverse e-learners in business schools. *Multicultural Education & Technology Journal*, 7(1), 17-45. doi:http://dx.doi.org/10.1108/17504971311312609
- van Dierendonck, D. (2011). Servant leadership: A review and synthesis. *Journal Of Management*, 37(4), 1228-1261. doi:10.1177/0149206310380462
- van Dierendonck, D., & Nuijten, I. (2011). The servant leadership survey: Development and validation of a multidimensional measure. *Journal of Business and Psychology*, 26, 249–267.
- van Dierendonck, D., Stam, D., Boersma, P., de Windt, N., & Alkema, J. (2014). Same difference? Exploring the differential mechanisms linking servant leadership and transformational leadership to follower outcomes. *The Leadership Quarterly*, 25(3), 544-562. doi: http://dx.doi.org/10.1016/j.leaqua.2013.11.014
- van Griensven, H., Moore, A. P., & Hall, V. (2014). Mixed methods research The best of both worlds? *Manual Therapy*, 19(5), 367-371.
- van Winkle, B., Allen, S., De Vore, D., & Winston, B. (2014). The Relationship Between the Servant Leadership Behaviors of Immediate Supervisors and Followers' Perceptions of Being Empowered in the Context of Small Business. *Journal Of Leadership Education*, 13(3), 70-82.
- Venkatesh, V., Brown, S. A., & Bala, H. (2013). Bridging the qualitative-quantitative divide: guidelines for conducting mixed methods research in information systems. *MIS Quarterly*, 37(1), 21-54.
- Walker, C. E., & Kelly, E. (2007). Online instruction: Student satisfaction, kudos, and pet peeves. *Quarterly Review of Distance Education*, 8(4), 309-319.
- Warner, P. (2013). Testing association with Fisher's Exact test. *Journal Of Family Planning & Reproductive Health Care*, 39(4), 281-284 4p. doi:10.1136/jfprhc-2013-100747

Waterman, H. (2011). Principles of 'servant leadership' and how they can enhance practice. *Nursing Management - UK*, *17*(9), 24-26.

- Watts, S. W. (2015). Andragogy and online course satisfaction: A correlation study (Order No. 3671866). Available from Dissertations & Theses @ Northcentral University; ProQuest Dissertations & Theses Full Text. (1651615118). Retrieved from http://search.proquest.com.proxy1.ncu.edu/docview/1651615118/41F5A9D2817942C0PQ/1?accountid=28180
- Wheeler, D. W. (2012). Servant leadership for higher education: Principles and practices. San Francisco, CA: Wiley
- Williams, Matt N., Grajales, Carlos Alberto Gómez, & Kurkiewicz, Dason (2013).

 Assumptions of Multiple Regression: Correcting Two Misconceptions. *Practical Assessment, Research & Evaluation, 18*(11).
- Williamson, J. L., & Martin, A. G. (2010). Analysis of patient information leaflets provided by a district general hospital by the Flesch and Flesch-Kincaid method. *International Journal Of Clinical Practice*, 64(13), 1824-1831. doi:10.1111/j.1742-1241.2010.02408.x
- Winston, B. E. (2003). Extending Patterson's servant leadership model: Explaining how leaders and followers interact in a circular model. Presented at the Servant Leadership Research Roundtable, Virginia Beach, VA.
- Wong, P., & Davey, D. 2007. *Best practices in servant leadership*. Paper presented at the Servant Leadership Research Roundtable, Regent University, Virginia Beach, VA.
- Wong, P., & Page, D. (2003). Servant leadership: An opponent-process model and the revised servant leadership profile. Presented at the Servant Leadership Research Roundtable, Virginia Beach, VA.
- Woodall, T., Hiller, A., & Resnick, S. (2014). Making sense of higher education: students as consumers and the value of the university experience. *Studies In Higher Education*, 39(1), 48-67. doi:10.1080/03075079.2011.648373
- Yamagata-Lynch, L. C. (2014). Blending Online Asynchronous and Synchronous Learning. *International Review Of Research In Open & Distance Learning*, 15(2), 189-212.
- Xu, D., & Jaggars, S. S. (2011). The effectiveness of distance education across Virginia's community colleges: Evidence from introductory college-level math and English courses. *Educational Evaluation And Policy Analysis*, 33(3), 360-377. doi:10.3102/0162373711413814

- Yates, W. D. (2011). A correlational study of the relationship between instructor transformational leadership behaviors and satisfaction with instructors. (Doctoral dissertation, University of Phoenix). Retrieved from http://olc.onlinelearningconsortium. org/conference/2012/aln/using-instructor-transformational-leadership-behaviors-improve-persistence-onlin
- Young Ju, J., Sunyoung, J., & Eun Kyung, K. (2013). Structural relationships among elearners' sense of presence, usage, flow, satisfaction, and persistence. *Journal Of Educational Technology & Society*, 16(2), 310-324.
- Yukl, G. (2010). *Leadership in organizations*. New Jersey: Upper Saddle River. Pearson Prentice Hall.